

# STIC Search Report Biotech-Chem Library

# STIC Database Tracking Number: 200606

TO: Satyanarayana Gudibande

Location: 3a20 / 3c18

Thursday, September 07, 2006

Art Unit: 1654

Phone: 571-272-8146

Serial Number: 10 / 078247

From: Jan Delaval Location: EIC 1700

Remsen 4b30

Phone: 571-272-2504

jan.delaval@uspto.gov

# **Search Notes**

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L57 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:77534 HCAPLUS

DN 138:142467

TI Compositions and methods for enhancing drug delivery across and into ocular tissues

IN Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P. Leo; Sista, Lalitha V. S.; Kirschberg, Thorsten A.

PA Cellgate, Inc., USA

SO U.S. Pat. Appl. Publ., 64 pp., Cont.-in-part of U.S. Ser. No. 792,480. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 4

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OS MARPAT 138:142467

AB This invention provides compns. and methods for enhancing delivery of drugs and other agents across epithelial tissues, including into and across ocular tissues and the like. The compns. and methods are also useful for delivery across endothelial tissues, including the blood brain barrier. The compns. and methods employ a delivery-enhancing transporter that has sufficient guanidino or amidino side chain moieties to enhance delivery of a compound conjugated to the reagent across one or more layers of the tissue, compared to the non-conjugated compound The delivery-enhancing polymers include, for example, polyarginine mols. that are preferably between about 6 and 25 residues in length.

IT 491875-87-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (delivery-enhancing transporters for drug delivery across and into
 ocular tissues)

IT 328234-41-9P 328234-42-0P 452337-48-3P 452337-51-8P 455282-35-6P 455282-36-7P 457906-55-7P 457906-67-1P 491875-89-9P 491875-91-3P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(delivery-enhancing transporters for drug delivery across and into ocular tissues)

IT 491875-87-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (delivery-enhancing transporters for drug delivery across and into
 ocular tissues)

RN 491875-87-7 HCAPLUS

CN D-Argininamide, D-arginyl-D-arginyl-D-arginyl-D-arginyl-Darginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

$$H_2N$$
 $H_2N$ 
 $H_2N$ 

PAGE 2-A

L57 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:696457 HCAPLUS

DN 137:237728

TI Peptide conjugates for enhancing drug delivery across and into epithelial tissues

IN Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P. Leo; Sista, Lalitha V. S.; Kirschberg, Thorsten A.

PA Cellgate, Inc., USA

SO U.S. Pat. Appl. Publ., 80 pp., Cont.-in-part of U.S. Ser. No. 648,400. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 4

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PI	US 2002127198 US 6669951	A1 B2	20020912	US 2001-792480	20010223 <
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jan delaval - 7 september 2006

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                                20020225
OS
     MARPAT 137:237728
AΒ
     This invention provides compns. and methods for enhancing delivery of
     drugs and other agents across epithelial tissues, including the skin,
     gastrointestinal tract, pulmonary epithelium, ocular tissues and the like.
       The compns. and methods are also useful for delivery across endothelial
     tissues, including the blood brain barrier. The compns. and methods
     employ a delivery enhancing transporter that has sufficient guanidino or
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amidino side-chain moieties to enhance delivery of a compound conjugated to the reagent across one or more layers of the tissue, compared to the non-conjugated compound The delivery-enhancing polymers include, for example, poly-arginine mols. that are preferably between about 6 and 25 residues in length. E.g., biotinylated polymers of D-arginine were prepared and their penetration into the skin of nude mice studied.

#### IT 328234-41-9P 328234-42-0P 455282-32-3P 457906-19-3P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(peptide conjugates for enhancing drug delivery across and into epithelial tissues)

#### IT 165893-48-1 216584-13-3

RL: RCT (Reactant); RACT (Reactant or reagent)
 (peptide conjugates for enhancing drug delivery across and into
 epithelial tissues)

IT 457906-65-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(peptide conjugates for enhancing drug delivery across and into epithelial tissues)

IT 123251-89-8P 452337-48-3P 452337-52-9P 452337-56-3P 455282-15-2P 455282-35-6P

457906-55-7P 457906-67-1P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(peptide conjugates for enhancing drug delivery across and into epithelial tissues)

IT 328234-41-9P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(peptide conjugates for enhancing drug delivery across and into epithelial tissues)

RN 328234-41-9 HCAPLUS

CN Cyclosporin A, 6-[(2S,3R,4R,6E)-3-[(mercaptoacetyl)oxy]-4-methyl-2-(methylamino)-6-octenoic acid]-, (6→8')-thioether with N2-[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]-D-arginyl

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-A

# PAGE 1-B

# PAGE 1-C

PAGE 1-D

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L57 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
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ΑN 2002:675821 HCAPLUS

DN 137:222033

ΤI Compositions and methods for enhancing drug delivery across and into ocular tissues

IN Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P. Leo; Sista, Lalitha Vs; Kirschberg, Thorsten A.

PΑ Cellgate, Inc., USA

PCT Int. Appl., 119 pp. SO

CODEN: PIXXD2

DT Patent

LA English

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OS MARPAT 137:222033

AB Compns. and methods for enhancing delivery of drugs, diagnostic and other agents across epithelial tissues, including into and across ocular tissues and blood-brain barrier are provided. The compns. and methods employ a delivery enhancing transporter that has sufficient quanidino or amidino side chain moieties to enhance delivery of a compound conjugated to the reagent across one or more layers of the tissue, compared to the non-conjugated compound The delivery-enhancing polymers include, for example, poly-arginine mols. that are preferably between about 6 and 25 residues in length. For example, a series of structural characteristics including sequence length, amino acid composition, and chirality that influence the ability of Tat49-57 to enter cells is identified. These characteristics provided the blueprint for the design of a series of novel peptoids, of which 17 members were synthesized and assayed for cellular uptake. This research established that the peptide backbone and hydrogen bonding along that backbone are not required for cellular uptake, that the guanidino head group is superior to other cationic subunits, and most significantly, that an extension of the alkyl chain between the backbone and the head group provides superior transporters. In addition to better uptake performance, these novel peptoids offer several advantages over Tat49-57 including cost-effectiveness, ease of synthesis of analogs, and protease stability. These features along with their significant water solubility (>100 mg/mL) indicate that these novel peptoids could serve as effective transporters for the mol. delivery of drugs, drug candidates, and other agents into cells.

IT 153127-44-7DP, fluorescein conjugate 216584-13-3DP,

fluorescein conjugate

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

IT 455282-28-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

IT 123251-89-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

IT 452337-48-3P 452337-52-9P 452337-56-3P

455282-15-2P 455282-30-1P 455282-31-2P

455282-33-4P 455282-35-6P 455282-36-7P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

IT 216584-13-3D, cyclosporin A conjugate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

IT 153127-44-7DP, fluorescein conjugate

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

RN 153127-44-7 HCAPLUS

CN D-Arginine, D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

NH<sub>2</sub>

$$H_2N$$
 $H_2N$ 
 $H_2N$ 
 $H_3$ 
 $H_4$ 
 $H_4$ 
 $H_5$ 
 $H_5$ 
 $H_6$ 
 $H_7$ 
 $H_8$ 
 $H$ 

RETABLE

Referenced Author | Year | VOL | PG | Referenced Work | Referenced

jan delaval - 7 september 2006

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(RAU)
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Bretton, R
                    |2000 | | | |US 6089234 A |
                               Cellgate Inc
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                               - 1
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Rothbard
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                     |2000 |
L57
    ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
    2002:657914 HCAPLUS
ΑN
DN
    137:206525
ΤI
    Transporters comprising spaced arginine moieties
TN
    Wender, Paul A.; Rothbard, Jonathan B.; Wright,
    Lee; Kreider, Erik L.; Vandeusen, Christopher L.
PA
    Cellgate, Inc., USA; Univ. Leland Stanford Junior
    PCT Int. Appl., 58 pp.
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    CODEN: PIXXD2
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LA
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    WO 2002065986 A2 20020829 WO 2002-US4491 20020214 <--
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os
    MARPAT 137:206525
AΒ
    The present invention provides compns. and methods for enhancing transport
    of biol. active compds. across biol. membranes and across and into animal
    epithelial or endothelial tissues. The composition includes a biol. active
    agent and a transport moiety. The transport moiety includes a structure
    selected from the group consisting of (ZYZ)nZ, (ZY)nZ, (ZYY)nZ and
    (ZYYY)nZ. Subunit "Z" is L-arginine or D-arginine, and subunit "Y" is an
    amino acid that does not comprise an amidino or guanidino moiety.
    Subscript "n" is an integer ranging from 2 to 10. The method for
    enhancing transport involves the administration of the aforementioned
    composition
ΤT
    452337-48-3P 452337-52-9P 452337-56-3P
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RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC

(Process); USES (Uses)

(cell-membrane drug transporters comprising spaced arginine moieties)

# IT 452337-26-7P 452337-29-0P 452337-30-3P

RL: PAC (Pharmacological activity); PNU (Preparation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cell-membrane drug transporters comprising spaced arginine moieties)

IT 165893-48-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(cell-membrane drug transporters comprising spaced arginine moieties)

IT 452337-48-3P

RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(cell-membrane drug transporters comprising spaced arginine moieties)

RN 452337-48-3 HCAPLUS

CN L-Cysteinamide, N2-[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-S-[2-[[(11β)-11,17-dihydroxy-3,20-dioxopregn-4-en-21-yl]oxy]-2-oxoethyl]-, heptakis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 452337-47-2 CMF C84 H147 N33 O17 S2

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 1-C

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$$(CH2)4$$

$$(CH2)4$$

$$H$$

$$H$$

$$H$$

$$H$$

CM 2

CRN 76-05-1 CMF C2 H F3 O2

L57 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:515124 HCAPLUS

DN 137:210414

TI Arginine-rich molecular transporters for drug delivery: role of backbone spacing in cellular uptake

AU Rothbard, Jonathan B.; Kreider, Erik; VanDeusen, Christopher L.; Wright, Lee; Wylie, Bryan L.; Wender, Paul A.

CS CellGate Inc., Sunnyvale, CA, 94085, USA

SO Journal of Medicinal Chemistry (2002), 45(17), 3612-3618 CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

LA English

AB Short oligomers of arginine, either alone or when conjugated to therapeutic agents or large biopolymers, have been shown to cross readily

a variety of biol. barriers (e.g., lipid bilayers and epithelial tissue). Mol. modeling suggests that only a subset of the side chain guanidinium groups of these transporters might be required for transport involving contact with a common surface such as a plasma membrane or cell surface receptor. To evaluate this hypothesis, a series of decamers were prepared that incorporated seven arginines and three nonarginine residues. Several of these mixed decamers were comparable to the all arginine decamer in their ability to enter cells. More significantly, these decamers containing seven arginines performed almost without exception better than hepta-arginine itself, suggesting that spacing between residues is also important for transport. The influence of spacing was more fully evaluated with a library of oligomers incorporating seven arginines separated by one or more nonconsecutive, non- $\alpha$ -amino acids. This study led to the identification of a new series of highly efficient mol. transporters.

IT 452337-26-7P 457633-17-9P

RL: PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(arginine-rich mol. transporters for drug delivery: role of backbone spacing in cellular uptake)

IT 452337-26-7P

RL: PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(arginine-rich mol. transporters for drug delivery: role of backbone spacing in cellular uptake)

RN 452337-26-7 HCAPLUS

CN L-Argininamide, N2-[6-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]-1-oxohexyl]-L-arginyl-6-aminohexanoyl-L-arginyl-6-aminohexanoyl-L-arginyl-6-aminohexanoyl-L-arginyl-6-aminohexanoyl-L-arginyl-6-aminohexanoyl-L-arginyl-6-aminohexanoyl-L-arginyl-6-aminohexanoyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 1-D

RETABLE

Magzoub, M

Mitchell, D

PAGE 2-B

|Biochim Biophys Acta|HCAPLUS

| HCAPLUS

Referenced Author (RAU)	Year   VOL	)   (RPG)	, , , , , , , , , , , , , , , , , , , ,	
Bellet-Amalric, E Dathe, M Derossi, D Fischer, P Frankel, A Futaki, S Humphrey, W Kale, L Kown, M Kown, M Lebleu, B	2000  1467  1999  1462  1994  269  2001  12  1988  55  2001  276  1996  14  1999  151  2001  121  2001  71  1996  14	131  171  10444  825  1189  5836  33  283  971  1542  109	Bioconjugate Chem	===
Mackerell, A	1998  102	3586	J Phys Chem   HCAPLUS	

|318

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jan delaval - 7 september 2006

| J Pept Res

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Rothbard, J
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                                          |Nat Med
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Wender, P
                       12000 197
                                   |13003 | Proc Natl Acad Sci U| HCAPLUS
L57
    ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
ΑN
     2002:2517 HCAPLUS
DN
     137:237523
ΤI
     Molecular transporters for peptides: delivery of a cardioprotective
     εPKC agonist peptide into cells and intact ischemic heart using a
     transport system, R7
ΑU
     Chen, Leon; Wright, Lee R.; Chen, Che-Hong; Oliver, Steven F.;
     Wender, Paul A.; Mochly-Rosen, Daria
CS
     Department of Molecular Pharmacology, Stanford University School of
     Medicine, Stanford, CA, 94305-5174, USA
SO
     Chemistry & Biology (2001), 8(12), 1123-1129
     CODEN: CBOLE2; ISSN: 1074-5521
PΒ
     Elsevier Science Ltd.
DT
     Journal
LĄ
     English
AB
     Background: Recently, we reported a novel oligoguanidine transporter
     system, polyarginine (R7), which, when conjugated to spectroscopic probes
     (e.g., fluorescein) and drugs (e.g., cyclosporin A), results in highly
     water-soluble conjugates that rapidly enter cells and tissues. We report
     herein the preparation of the first R7 peptide conjugates and a study of their
     cellular and organ uptake and functional activity. The octapeptide
     \psi\epsilon RACK was selected for this study as it is known to exhibit
     selective \epsilon protein kinase C isoenzyme agonist activity and to
     reduce ischemia-induced damage in cardiomyocytes. However,
     ψε RACK is not cell-permeable. Results: Here we show that an
     R7-ψε RACK conjugate readily enters cardiomyocytes,
     significantly outperforming we RACK conjugates of the
     transporters derived from HIV Tat and from Antennapedia. Moreover,
     R7-ψε RACK conjugate reduced ischemic damage when delivered
     into intact hearts either prior to or after the ischemic insult.
     Conclusions: Our data suggest that R7 converts a peptide lead into a
     potential therapeutic agent for the ischemic heart.
TΤ
     165893-48-1
     RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (delivery of cardioprotective &PKC agonist peptide into cells
        and intact ischemic heart using polyarginine transport system)
ΙT
     165893-48-1
     RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (delivery of cardioprotective &PKC agonist peptide into cells
        and intact ischemic heart using polyarginine transport system)
RN
     165893-48-1 HCAPLUS
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Absolute stereochemistry.

(9CI) (CA INDEX NAME)

L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-

PAGE 2-A

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RETABLE Referenced Author (RAU)	(RPY) (	(RVL)   (RPG)	Referenced Work   Referenced   (RWK)   File
, ,	+====+=  1992  2  1999  9  1994  2  1997  2  1996  2  1993  2  1997  9  2000  2  2000  5  2000  8  1991  2  1991  8  1986  7  1996  3  1995  2	267   13376 267   13376 269   10444 269   10444 26   12798 272   30945 271   24962 268   8256 24   14942 21   99 26   318 26   1173 266   14866 28   3997 29   4   1124 27   1347 270   24180	(RWK)   File +====================================
Rothbard, J Schwarze, S Souroujon, M	2000  6  1999  2  1998  1	85   1569	Nature Med

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                       11997 | 36
                                   19388
                                          |Biochemistry
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                                                                IMEDLINE
Strauss, E
                       |1999 |285
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Vijayaraqhavan, S
                       |1997 |272 |4747 |J Biol Chem
                                                                IHCAPLUS
Vives, E
                       |1997 |272 |16010 |J Biol Chem
                                                                | HCAPLUS
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- L57 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 2001:513877 HCAPLUS
- DN 136:268064
- TI L-Arginine polymer mediated inhibition of graft coronary artery disease after cardiac transplantation
- AU Kown, Murray H.; van der Steenhoven, Tim; Uemura, Shiro; Jahncke, Christina L.; Hoyt, Grant E.; Rothbard, Jonathon B.; Robbins, Robert C.
- CS Department of Cardiothoracic Surgery, Stanford University School of Medicine, Stanford, CA, 94025, USA
- SO Transplantation (2001), 71(11), 1542-1548 CODEN: TRPLAU; ISSN: 0041-1337
- PB Lippincott Williams & Wilkins
- DT Journal
- LA English
- AΒ Nitric oxide (NO) limits the development of graft coronary artery disease (GCAD) in transplanted hearts. We hypothesized that L-arginine polymers administered to cardiac allografts ex vivo would translocate across vascular cellular membranes, upregulate inducible nitric oxide synthase (iNOS) production of NO, and inhibit the development of GCAD. Three groups of PVG rat donor hearts were incubated with either 0.8 mL phosphate-buffered saline, (PBS, n=12) or 50  $\mu M$  L-arginine polymer solns. of length five (R5, n=12) or nine (R9, n=12) prior to heterotopic transplantation into ACI recipients. Graft vessels were scored at POD 60 and 90 for percentage luminal narrowing (%LN), intima to media ratio (I/M), and percentage affected vessels (%AV). Translocation efficiency was determined by treatment with biotinylated polymers. NO production of treated aortic segments was determined in vitro by Griess reaction. Translocation efficiencies were  $89\pm19\%$  (R9),  $7\pm10\%$  (R5), and  $0\pm0\%$  PBS (ANOVA, P<0.001) which corresponded to NO production in treated aortic segments of  $0.175 \pm 0.17$ (R9),  $0.120\pm0.006$  (R5), and  $0.135\pm0.035$   $\mu\text{M/mg}$  (PBS), (ANOVA, P=0.002). GCAD scores at POD 60 were: %LN: 3.2±3.8% (R9), 12.6±6.7% (R5), 11.3±4.2% (PBS) (ANOVA, P=0.025); I/M: 0.03±0.04 (R9),  $0.13\pm0.07$  (R5),  $0.12\pm0.05$  (PBS) (ANOVA, P=0.037); %AV:  $7\pm7\%$  (R9), 19±7%(R5), 22±9%(PBS) (ANOVA, P=0.021). Reduction of GCAD parameters was maintained at POD 90. R9 efficiently translocated across cytoplasmic membranes, enhanced vascular NO production, and decreased neointimal hyperplasia. This ex vivo treatment may have a therapeutic role in preventing GCAD.
- IT 208646-06-4

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (arginine polymer-mediated inhibition of graft coronary artery disease after cardiac transplantation)

IT 208646-06-4

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (arginine polymer-mediated inhibition of graft coronary artery disease after cardiac transplantation)

RN 208646-06-4 HCAPLUS

CN L-Argininamide, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$H_2N$$
 $H_2N$ 
 $H_2N$ 

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Azuma, H Azuma, H Best, P Billingham, M Chester, A Cooke, J Dusting, G Efthymiadis, A Hill, C Ignarro, L Jeremy, R	+====+===   1995   115   1994   6   1999   19   1994   8   1998   38   1992   90   1995   27   1998   273   1994   152   1987   84   1996   94	1001   770   14   289   814   1168   395   1623   2890   9265   498	Hr J Pharmacol   Curr Opin Immunol   Arterioscler Thromb   Clin Transplant   Cardiovasc Res   J Clin Invest   Ann Med   J Biol Chem   J Immunol   Proc Natl Acad Sci   Circulation	HCAPLUS   HCAPLUS   MEDLINE   MEDLINE   HCAPLUS   HCAPLUS   HCAPLUS   HCAPLUS

jan delaval - 7 september 2006

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                                            |Circulation
                                                                  IMEDITIE
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                        11993 | 268
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Kown, M
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Mitchell, D
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                                           |Proc Natl Acad Sci U|HCAPLUS
Newman, K
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                                           | J Clin Invest
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Okazaki, J
                        |1997 |36
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                                            | Cardiovasc Res
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Ono, K
                        11969 | 57
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                                            | J Thorac Cardiovasc | MEDLINE
Poston, R
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Schwarzacher, S
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Shears, L
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Uemura, S
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Vives, E
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Von der, L
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Wang, C
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Yao, S
                        |1992 |86
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                                                                  | HCAPLUS
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- L57 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 2001:382668 HCAPLUS
- DN 136:128766
- TI L-arginine polymers inhibit the development of vein graft neointimal hyperplasia
- AU Kown, Murray H.; Yamaguchi, Atsushi; Jahncke, Christina L.; Miniati, Douglas; Murata, Seiichiro; Grunenfelder, Jurg; Koransky, Mark L.; Rothbard, Jonathan B.; Robbins, Robert C.
- CS Department of Cardiothoracic Surgery, University School of Medicine, Stanford, CA, USA
- SO Journal of Thoracic and Cardiovascular Surgery (2001), 121(5), 971-980
  CODEN: JTCSAQ; ISSN: 0022-5223
- PB Mosby, Inc.
- DT Journal
- LA English
- AB We sought to determine whether L-arginine polymer treatment of vein grafts enhances vascular production of nitric oxide and inhibits the development of neointimal hyperplasia. External jugular veins of New Zealand White rabbits (n = 42) were harvested; treated intraluminally for 15 min with phosphate-buffered saline solution or L-arginine polymer 5, 7, or 9 at either 10 or 100 µmol/L; and then grafted into the contralateral carotid artery. Rabbits were killed after 28 days, and 5-µm sections of vessels were stained with hematoxylin and scored for intima/media ratio by using computerized morphometric anal. Sep. veins were treated in a similar fashion with biotinylated polymers and phosphate-buffered saline solution to assess for translocation efficiencies. Finally, vein segments pretreated with either phosphate-buffered saline solution or L-arginine polymers were cultured in Dulbecco's modified Eagle's medium containing lipopolysaccharide (100  $\mu$ g/mL) and interferon  $\gamma$  (200 U/mL) for 48 h before measuring nitric oxide levels by means of the Griess reaction. Biotinylated L-arginine polymers demonstrated a dose- and length-dependent uptake into intimal and medial cells of treated vessels. Nitric oxide levels were significantly higher in vein segments treated with 100

µmol/L of L-arginine polymer compared with control segments. Finally, the intima/media ratio also reflected both length- and concentration-dependent inhibition of neointimal hyperplasia. Arginine polymers of sufficient length and concentration were effective in increasing nitric oxide levels and reducing neointimal hyperplasia in this vein graft model.

IT 208646-04-2 208646-06-4

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(L-arginine polymers inhibit development of vein graft neointimal hyperplasia)

IT 208646-04-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(L-arginine polymers inhibit development of vein graft neointimal hyperplasia)

RN 208646-04-2 HCAPLUS

CN L-Argininamide, L-arginyl-L-argin

Absolute stereochemistry.

$$H_2N$$
 $H_2N$ 
 $H_2N$ 

PAGE 2-A

# RETABLE

Referenced Author | Year | VOL | PG | Referenced Work | Referenced

jan delaval - 7 september 2006

(RAU)			(RPG)		File		
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Canver, C			11150	Chest	MEDLINE		
Castillo, L	11994	143	1114	Metabolism	HCAPLUS		
Chester, A	1998	138	814	Cardiovasc Res	HCAPLUS		
Cohen, J	1998	397	169	Prog Clin Biol Res	HCAPLUS		
Cooke, J	1992	90	11168	J Clin Invest	HCAPLUS		
Davies, M	1995	159	35	J Surg Res	HCAPLUS		
Dusting, G	11995	27	1395	Ann Med	HCAPLUS		
Efthymiadis, A	•	1273	1623	J Biol Chem	HCAPLUS		
Fitzgibbon, G	•		616	J Am Coll Cardiol	MEDLINE		
Fulton, G	•	15	1279	Eur J Vasc Endovasc	MEDLINE		
Hansson, G		180	1733	J Exp Med	HCAPLUS		
Hecker, M			19	Gen Pharmacol	HCAPLUS		
Hill, C	1994	152	2890	J Immunol	HCAPLUS		
Jeremy, R	•	•	498	Circulation	HCAPLUS		
Koide, M	•	268	24959	J Biol Chem	HCAPLUS		
Masini, E	•	•	561	Inflamm Res	HCAPLUS		
Mitchell, D		156	318	J Pept Res	HCAPLUS		
Morishita, R	•		5855	Proc Natl Acad Sci U	HCAPLUS		
Motwani, J			916	Circulation	MEDLINE		
Okazaki, J	1997		429	Cardiovasc Res	HCAPLUS		
Sarkar, R	•	78	225	Circ Res	HCAPLUS		
Shears, L	•	•	2035	J Clin Invest	HCAPLUS		
Southern, L		55	857	J Anim Sci	HCAPLUS		
Tsao, P	•		2176	Circulation	HCAPLUS		
Uemura, S	•		2629	Circulation	1		
Vinten-Johansen, J	-		273	Int J Cardiol	MEDLINE		
Vives, E	1997	•		J Biol Chem	HCAPLUS		
Von der, L	•		1137	Proc Natl Acad Sci U	П		
Wu, G	1998	1336	11	Biochem J	HCAPLUS		

- L57 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 2000:900053 HCAPLUS
- DN 135:55761
- TI Rapid and efficient vascular transport of arginine polymers inhibits myointimal hyperplasia
- AU Uemura, Shiro; Fathman, C. Garrison; Rothbard, Jonathan B.; Cooke, John P.
- CS Department of Medicine, Stanford University School of Medicine, Stanford, USA
- SO Circulation (2000), 102(21), 2629-2635 CODEN: CIRCAZ; ISSN: 0009-7322
- PB Lippincott Williams & Wilkins
- DT Journal
- LA English
- AB We recently discovered that short polymers of arginine efficiently translocate across the cytoplasmic membrane independent of the basic amino acid transporter. We evaluated the kinetics and biol. effects of heptamers of L-arginine and D-arginine (L-R7 and D-R7, resp.) in vascular cells. We assessed the effects of these peptides on the NO synthesis pathway and vascular cell proliferation. Human umbilical vein endothelial cell and rabbit vascular segments were incubated in medium containing biotin-labeled L-R7 or D-R7. Both polymers rapidly translocated through the vessel wall and into the vascular cells in a dose- and time-dependent fashion. At a dose of 10 μmol/L for 30 min, 100% of the endothelial cells showed evidence of cytoplasmic and nuclear localization of the peptides. To evaluate the biol. effects of the polymer translocation on myointimal formation, rabbit jugular vein segments were incubated with

polymers (10 µmol/L, 30 min) or vehicle before arterial interposition grafting. Planimetric measurement 28 days after surgery revealed that L-R7 and D-R7 substantially reduced myointimal formation compared with the control condition (intima/media ratio: control 1.50.5, L-R7 0.40.2, and D-R7 0.80.2). Furthermore, basal nitrate and nitrite production from L-R7-treated grafts was significantly higher than that from both control and D-R7-treated veins. Studies in vitro of cultured vascular smooth muscle cells revealed that both polymers also exhibit an NO-independent inhibition of vascular smooth muscle cell proliferation. Short polymers of arginine have the unique ability of vascular cell translocation, and they also have direct biol. effects. These attributes are potentially useful in treating myointimal hyperplasia.

## IT 165893-48-1 216584-13-3

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(arginine polymer rapid and efficient vascular transport inhibits myointimal hyperplasia)

#### IT 165893-48-1

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(arginine polymer rapid and efficient vascular transport inhibits myointimal hyperplasia)

RN 165893-48-1 HCAPLUS

CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 2-A

|| NH

| J Cardiovasc Pharmac|

| J Pharmacol Exp Ther | HCAPLUS

| HCAPLUS

| HCAPLUS

|16010 |J Biol Chem

|Eur Heart J

Science

RETABLE					
Referenced Author	Year	•	•	Referenced Work	Referenced
(RAU)			(RPG)	(RWK) =+===========	File
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Cooke, J	1997	148	1489	Annu Rev Med	HCAPLUS
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Dattilo, J	1997	174	177	Am J Surg	MEDLINE
Davies, M	1994	116	557	Surgery	MEDLINE
D'Aniello, A	1993	105	731	Comp Biochem Physiol	MEDLINE
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Forrester, J	1991	17	758	J Am Coll Cardiol	MEDLINE
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Garg, U	1989	190	1774	J Clin Invest	
Girerd, X	1990	167	1301	Circ Res	HCAPLUS
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Masuda, H	1999	1126	211	Br J Pharmacol	HCAPLUS
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Mitchell, D	1	1	1	To be published in P	1
Morris, S	1994	1266	[E829	Am J Physiol	HCAPLUS
Motwani, J	1998	197	1916	Circulation	MEDLINE
Nagase, S	1997	1233	150	Biochem Biophys Res	HCAPLUS
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Pastan, I	1981	1214	1504	Science	HCAPLUS
Pollman, M	1996		1748	Circ Res	HCAPLUS
Ruben, S	1989	163	1	J Virol	HCAPLUS
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Tsao, P	1996	194	11682	Circulation	HCAPLUS
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V-11 D	11000	100	15.00	17.0 11 51	

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L57 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
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|1992 |20

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Vallance, P

Vives, E

Wang, Q

Weeks, K

Yang, Z

1560

1270

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1193

AN 2000:880980 HCAPLUS

DN 134:37025

TI Method and composition using an amino acid polymer for inhibiting cardiovascular cell proliferation

IN Cooke, John P.; Fathman, Garrison C.; Rothbard, Jonathan B.; Uemura, Shiro; Robbins, Robert C.

PA The Board of Trustees of the Leland Stanford Junior University, USA

SO PCT Int. Appl., 38 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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PATENT NO.
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                               DATE
                                         APPLICATION NO.
                                                                 DATE
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    WO 2000074701
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            CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
            ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
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    US 2003-442671
                        A1
                               20030520
    Cardiovascular cell proliferation in a blood vessel subjected to trauma,
AB
    e.g. angioplasty, vascular graft, anastomosis, or organ transplant, can be
    inhibited by contacting the vessel with a polymer consisting of from 6 to
    about 30 amino acid subunits, where at least 50% of the subunits are
    arginine, and the polymer contains at least six contiguous arginine
    subunits. Exemplary polymers for this purpose include arginine
    homopolymers 7 to 15 subunits in length.
ΙT
    143413-47-2 165893-48-1 312691-24-0
    312691-25-1
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (amino acid polymer for inhibiting cardiovascular cell proliferation)
TΤ
    165893-48-1D, biotinylated 216584-13-3D, biotinylated
    RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (amino acid polymer for inhibiting cardiovascular cell proliferation)
ΙT
    143413-47-2
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (amino acid polymer for inhibiting cardiovascular cell proliferation)
RN
    143413-47-2 HCAPLUS
CN
    L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-
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Absolute stereochemistry.

arginyl-L-arginyl- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

\_\_\_NH2

$$H_2N$$
 $H_2N$ 
 $H_1$ 
 $H_2N$ 
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 $H_8$ 
 $H$ 

L57 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN AN 2000:846954 HCAPLUS

- DN 134:183382
- TI The design, synthesis, and evaluation of molecules that enable or enhance cellular uptake: peptoid molecular transporters
- AU Wender, Paul A.; Mitchell, Dennis J.; Pattabiraman, Kanaka; Pelkey, Erin T.; Steinman, Lawrence; Rothbard, Jonathan B.
- CS Department of Chemistry, Stanford University, Stanford, CA, 94305-5080, USA
- SO Proceedings of the National Academy of Sciences of the United States of America (2000), 97(24), 13003-13008 CODEN: PNASA6; ISSN: 0027-8424
- PB National Academy of Sciences
- DT Journal
- LA English
- Certain proteins contain subunits that enable their active translocation AΒ across the plasma membrane into cells. In the specific case of HIV-1, this subunit is the basic domain Tat49-57 (RKKRRQRRR). To establish the optimal structural requirements for this translocation process, and thereby to develop improved mol. transporters that could deliver agents into cells, a series of analogs of Tat49-57 were prepared and their cellular uptake into Jurkat cells was determined by flow cytometry. All truncated and alanine-substituted analogs exhibited diminished cellular uptake, suggesting that the cationic residues of Tat49-57 play a principal role in its uptake. Charge alone, however, is insufficient for transport as oligomers of several cationic amino acids (histidine, lysine, and ornithine) are less effective than Tat49-57 in cellular uptake. In contrast, a 9-mer of L-arginine (R9) was 20-fold more efficient than Tat49-57 at cellular uptake as determined by Michaelis-Menton kinetic anal. The D-arginine oligomer (r9) exhibited an even greater uptake rate enhancement (>100-fold). Collectively, these studies suggest that the quanidinium groups of Tat49-57 play a greater role in facilitating cellular uptake than either charge or backbone structure. Based on this anal., we designed and synthesized a class of polyguanidine peptoid derivs. Remarkably, the subset of peptoid analogs containing a six-methylene space between the guanidine head group and backbone (N-hxg), exhibited significantly enhanced cellular uptake compared to Tat49-57 and even to r9. Overall, a transporter has been developed that is superior to Tat49-57, protease resistant, and more readily and economically prepared TΤ 123251-89-8

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(design, synthesis, and evaluation of peptoid mol. transporters that enable or enhance cellular uptake)

#### IT 123251-89-8

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(design, synthesis, and evaluation of peptoid mol. transporters that enable or enhance cellular uptake)

- RN 123251-89-8 HCAPLUS
- CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

RETABLE

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(RAU)	(RPY)   (RVL)	(RPG)	(RWK)   File
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Derossi, D	1998  8	84	Trends Cell Biol   HCAPLUS
Elliott, G	1997  88	1223	Cell  HCAPLUS
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Fawell, S	1994  91	1664	Proc Natl Acad Sci U HCAPLUS
Feichtinger, K	1998  63	18432	J Org Chem   HCAPLUS
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Ghosh, A	1996  3	1011	Chem Biol   HCAPLUS
Gius, D	1999  59	12577	Cancer Res   HCAPLUS
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- L57 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 2000:802976 HCAPLUS
- DN 134:152475
- TI Conjugation of arginine oligomers to cyclosporin A facilitates topical delivery and inhibition of inflammation
- AU Rothbard, Jonathan B.; Garlington, Sarah; Lin, Qun; Kirschberg, Thorsten; Kreider, Erik; McGrane, Leo P.; Wender, Paul A.; Khavari, Paul A.
- CS CellGate, Sunnyvale, CA, 94086, USA
- SO Nature Medicine (New York) (2000), 6(11), 1253-1257 CODEN: NAMEFI; ISSN: 1078-8956
- PB Nature America Inc.
- DT Journal
- LA English
- AB Many systemically effective drugs such as cyclosporin A are ineffective topically because of their poor penetration into skin. To surmount this problem, we conjugated a heptamer of arginine to cyclosporin A through a pH-sensitive linker to produce R7-CsA. In contrast to unmodified cyclosporin A, which fails to penetrate skin, topically applied R7-CsA was efficiently transported into cells in mouse and human skin. R7-CsA reached dermal T lymphocytes and inhibited cutaneous inflammation. These data establish a general strategy for enhancing delivery of poorly absorbed drugs across tissue barriers and provide a new topical approach to the treatment of inflammatory skin disorders.
- IT 165893-48-1
  - RL: RCT (Reactant); RACT (Reactant or reagent) (conjugation of arginine oligomers to cyclosporin A facilitates topical

delivery and inhibition of inflammation)

IT 165893-48-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(conjugation of arginine oligomers to cyclosporin A facilitates topical delivery and inhibition of inflammation)

RN 165893-48-1 HCAPLUS

CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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- L57 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 2000:785678 HCAPLUS
- DN 134:113485
- TI Polyarginine enters cells more efficiently than other polycationic homopolymers
- AU Mitchell, D. J.; Kim, D. T.; Steinman, L.; Fathman, C. G.; Rothbard, J. B.
- CS Department of Neurology, Stanford University, Stanford, CA, USA
- SO Journal of Peptide Research (2000), 56(5), 318-325 CODEN: JPERFA; ISSN: 1397-002X
- PB Munksgaard International Publishers Ltd.
- DT Journal
- LA English
- Homopolymers or peptides containing a high percentage of cationic amino acids AB have been shown to have a unique ability to cross the plasma membrane of cells, and consequently have been used to facilitate the uptake of a variety of biopolymers and small mols. To investigate whether the polycationic character of these mols., or some other structural feature, was the mol. basis for the effect, the ability of a variety of homopolymers to enter cells was assayed by confocal microscopy and flow cytometry. Polymers of L- or D-arginine containing six or more amino acids entered cells far more effectively than polymers of equal length composed of lysine, ornithine and histidine. Peptides of fewer than six amino acids were ineffective. The length of the arginine side-chain could be varied without significant loss of activity. These data combined with the inability of polymers of citrulline to enter cells demonstrated that the guanidine headgroup of arginine was the critical structural component responsible for the biol. activity. Cellular uptake could be inhibited by pre-incubation of the cells with sodium azide, but not by low temperature (3°C), indicating that the process was energy dependent, but did not involve endocytosis.

IT 143413-47-2 153127-44-7 165893-48-1

216584-13-3 320351-21-1 320616-11-3

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(polyarginine uptake by cell membrane and intracellular transport)

IT 143413-47-2

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(polyarginine uptake by cell membrane and intracellular transport)

RN 143413-47-2 HCAPLUS

CN L-Arginine, L-arginyl-L

Absolute stereochemistry.

PAGE 1-B

\_\_\_NH2

PAGE 2-A

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 $H_2N$ 
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 $H_4N$ 
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Curiel, D	1994	1716	136	Ann NY Acad Sci	HCAPLUS
Frankel, A	1988	55	1189	Cell	HCAPLUS
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Green, M	1988	55	1179	Cell	HCAPLUS
Harrison, J	1998	126	3136	Nucleic Acids Res	HCAPLUS
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Laurent, N	1999	443	61	FEBS Lett	HCAPLUS
Mahato, R	1997	14	133	Crit Rev Ther Drug (	C HCAPLUS
Midoux, P	1998	19	1260	Bioconjugate Chem	HCAPLUS
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Ryser, H		113	1167	J Cell Physiol	HCAPLUS
Ryser, H	1967	215	1934	Nature	HCAPLUS
Ryser, H		75	3867	Proc Natl Acad Sci	J HCAPLUS
Ryser, H	•	150	501	Science	MEDLINE
Shen, W	1978	175	1872	Proc Natl Acad Sci	· ·
Uemura, S	1	1	1	to be published in (	
Wagner, E	1990	187	3410	Proc Natl Acad Sci	
Wu, G	1991	13	187	Biothera	HCAPLUS

L57 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:789054 HCAPLUS

DN 130:57169

TI Polymer conjugates for enhancing drug transport across biological membranes

IN Rothbard, Jonathan B.; Wender, Paul A.

PA The Board of Trustees of the Leland Stanford Junior University, USA

SO PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PA'	PATENT NO.				KIND DATE				APPLICATION NO.					DATE				
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    Methods and compns. for transporting drugs and macromols. across biol.
AΒ
    membranes are disclosed. In one embodiment, the invention includes a
    method for enhancing transport of a selected compound across a biol.
    membrane, wherein a biol. membrane is contacted with a conjugate containing a
    biol. active agent that is covalently attached to a transport polymer. In
     one embodiment, the polymer consists of from 6 to 25 subunits, at least 50
     % of which contain a guanidino or amidino side-chain moiety. The polymer
     is effective to impart to the attached agent a rate of trans-membrane
     transport across a biol. membrane that is greater than the rate of
     trans-membrane transport of the agent in non-conjugated form.
ΙT
     123251-89-8 143413-47-2 153127-44-7
     165893-48-1 216584-13-3
     RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
     use); BIOL (Biological study); PROC (Process); USES (Uses)
        (polymer conjugates for enhancing drug transport across biol.
        membranes)
ΙT
     123251-89-8
     RL: PEP (Physical, engineering or chemical process); THU (Therapeutic
     use); BIOL (Biological study); PROC (Process); USES (Uses)
        (polymer conjugates for enhancing drug transport across biol.
        membranes)
RN
    123251-89-8 HCAPLUS
CN
     L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-
     arginyl-L-arginyl- (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

PAGE 1-A

- L57 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 1997:534575 HCAPLUS
- DN 127:246793
- TI Introduction of soluble proteins into the MHC class I pathway by conjugation to an HIV tat peptide
- AU Kim, Dewey T.; Mitchell, Dennis J.; Brockstedt, Dirk G.; Fong, Lawrence; Nolan, Garry P.; Fathman, C. Garrison; Engleman, Edgar G.; Rothbard, Jonathan B.
- CS Dep. Med., Neurology, Pharmacology, and Pathology, Stanford Univ. Sch. Med., Stanford, CA, 94305, USA
- SO Journal of Immunology (1997), 159(4), 1666-1668 CODEN: JOIMA3; ISSN: 0022-1767
- PB American Association of Immunologists
- DT Journal
- LA English
- AB Protection against most intracellular pathogens requires T cells that recognize pathogen-derived peptides in association with MHC class I mols. on

the surface of infected cells. However, because exogenous proteins do not ordinarily enter the cytosol and access the MHC class I-processing pathway, protein-based vaccines that induce class I-restricted CTL responses have proved difficult to design. The authors addressed this problem by conjugating proteins, such as OVA, to a short cationic peptide derived from HIV-1 tat (residues 49-57). When APC were exposed in vitro to such protein conjugates, they processed and presented the peptides in association with MHC class I mols. and stimulated CD8+ antigen (Ag)-specific T cells. Moreover, Ag-specific CTLs were generated in vivo by immunizing mice with histocompatible dendritic cells that had been exposed to protein-tat conjugates.

### IT 123251-89-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(soluble proteins introduction into MHC class I pathway by conjugation to HIV tat peptide)

#### IT 123251-89-8

CN

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(soluble proteins introduction into MHC class I pathway by conjugation to HIV tat peptide)

RN 123251-89-8 HCAPLUS

L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RETABLE	
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Referenced Author (RAU)	Year   VOL  (RPY) (RVL	)   (RPG)	Referenced Work   (RWK) =+===================================	Referenced   File
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Fawell, S	1994  91	1664	Proc Natl Acad Sci	U HCAPLUS
Flamand, V	1994  24	1605	Eur J Immunol	MEDLINE
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Germain, R	1995  754	1114	Ann NY Acad Sci	HCAPLUS
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L59 ANSWER 1 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2006:740582 HCAPLUS

DN 145:180963

TI Membrane-permeable fusion proteins of tat and anti-apoptopic proteins for treatment of sepsis

IN Hotchkiss, Richard; Piwnica-Worms, David; Mcdunn, Jonathan

PA USA

SO U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. Ser. No. 374,035. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 5

PATENT NO. KIND DATE APPLICATION NO. DATE

PΙ	US 20061	.66881	A1	20060727	US	2005-286920	20051123	<
	US 63481	.85	B1	20020219	US	1999-336093	19990618	<
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	US 20032	219375	A1	20031127	US	2003-368280	20030218	<
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PRAI	US 1998-	-90087P	P	19980620	<			
	US 1999-	-336093	A2	19990618	<			
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	US 2003-	-368280	A2	20030218				
	US 2003-	-374035	A2	20030225				

AB Membrane permeable fusion proteins of anti-apoptopic proteins of the Bcl-2 family with cell membrane-penetrating peptide of the tat protein of human immunodeficiency virus are described for use in the prevention of large-scale apoptosis in the treatment of sepsis. Fusion proteins of the same tat peptide and a peptide complex with technetium99m are described for use in diagnostic imaging. Preparation of the fusion proteins, either by chem synthesis or expression of the corresponding gene is described. Fusion proteins of the tat peptide and the BH4 domain of Bcl-Xl improved survival in the rat cecal ligation and puncture model of sepsis and also promoted the survival of lymphocytes in vivo and in vitro.

IT 143413-47-2 627881-61-2

RL: PRP (Properties)

(unclaimed sequence; membrane-permeable fusion proteins of tat and anti-apoptopic proteins for treatment of sepsis)

IT 143413-47-2

RL: PRP (Properties)

(unclaimed sequence; membrane-permeable fusion proteins of tat and anti-apoptopic proteins for treatment of sepsis)

RN 143413-47-2 HCAPLUS

CN L-Arginine, L-arginyl-L

Absolute stereochemistry.

PAGE 1-B

-NH<sub>2</sub>

PAGE 2-A

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 L59 ANSWER 2 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ΑN 2005:1224630 HCAPLUS

DN 143:476398

ΤI Antibodies that immunospecifically bind to B lymphocyte stimulator and their use in diagnosis and treatment of autoimmune disease

IN Ruben, Steven M.; Barash, Steven C.; Choi, Gil H.; Vaughan, Tristan; Hilbert, David

PA

SO U.S. Pat. Appl. Publ., 240 pp., Cont.-in-part of Ser. No. US 2002-293418, filed on 14 Nov 2002 whichCont.-in-pa CODEN: USXXCO

DT Patent

LA English LA

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PΙ	US	2005255532		A1		2005	1117	US	2005-	54515		20	050210	<
	EΡ	1577391		A1		2005	0921	EP	2005-	12261		19	961025	<
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		IE, FI									-	•	•	
	US	2003059937		A1		2003	0327	US	2001-	880748		20	010615	<
	ΑU	2001054180		A5		2002	0725	AU	2001-	54180		20	010703	<
	ΑU	779750		B2		2005	0210							
	US	2003223996		A1		2003	1204	US	2002-	293418		20	021114	<
	JΡ	2004129667		A2		2004	0430	JP	2003-	362615		20	031022	<
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PRAI	US	2000-212210P		P		2000	0616	<						
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                   A3
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JP 1998-520411
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AB The present invention relates to 2128 VH and VL domains of single-chain antibodies and related mols. that immunospecifically bind to B Lymphocyte Stimulator (BLyS). The present invention also relates to methods and compns. for detecting or diagnosing a disease or disorder associated with aberrant BLyS expression or inappropriate function of BLyS comprising antibodies or fragments or variants thereof or related mols. that immunospecifically bind to BLyS. The present invention further relates to methods and compns. for preventing, treating or ameliorating a disease or disorder associated with aberrant BLyS expression or inappropriate BLyS function comprising administering to an animal an effective amount of one or more antibodies or fragments or variants thereof or related mols. that immunospecifically bind to BLyS.

#### IT 389116-42-1

RL: PRP (Properties)

(unclaimed protein sequence; antibodies that immunospecifically bind to B lymphocyte stimulator and their use in diagnosis and treatment of autoimmune disease)

#### IT 389116-42-1

RL: PRP (Properties)

(unclaimed protein sequence; antibodies that immunospecifically bind to B lymphocyte stimulator and their use in diagnosis and treatment of autoimmune disease)

RN 389116-42-1 HCAPLUS

CN L-Arginine, L-arginyl-L-leucyl-L-isoleucyl-L-arginyl-L-lysyl-L-alanyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

L59 ANSWER 3 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:238548 HCAPLUS

DN 142:294256

TI Use of HIV Tat peptides complexed with semiconductor nanocrystals for enhancing transport across cell membranes and their use in high throughput drug screening assays

IN Bruchez, Marcel P.; Daniels, R. Hugh; Dias, Jennifer; Mattheakis, Larry C.; Liu, Hongjian; Burt, Aquanette M.; Christoffer, Berndt; Ly, Danith H.

PA Quantum Dot Corporation, USA

SO U.S. Pat. Appl. Publ., 60 pp., Cont.-in-part of U.S. Ser. No. 972,744. CODEN: USXXCO

DT Patent

LA English

FAN CNT 2

FAN.	CNT	2																	
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PI	US US	20050 20020 20040 2550	1555 0232	07		A1 A1 A1		2005 2002 2004	1024 0205		US 2 US 2 US 2	001- 003-	9727 3746	44 52		20	0011 0030	212 · 005 ·	<
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		20050				A2		2005			WO 2	004-	US41	045		20	0041	206	
	WO	20050				A3		2006					_						
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								RU,											
								GR,											
			RO,	SE,	SI,		TR,	BF,											

PRAI US 2000-238677P Ρ 20001006 <--US 2001-312558P Ρ 20010815 <--US 2001-972744 20011005 A2 <--US 2003-735608 Α 20031212 WO 2004-US41045 W 20041206

AB The present invention relates to use of HIV Tat peptides complexed with semiconductor nanocrystals for enhancing transport across cell membranes and their use in high throughput drug screening assays. The methods are particularly useful in multiplex settings where a plurality of encoded cells are to be assayed. Kits comprising reagents for performing such methods are also provided.

#### IT 123251-89-8

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(Tat peptide sequence; use of HIV Tat peptides complexed with semiconductor nanocrystals for enhancing transport across cell membranes and their use in high throughput drug screening assays)

#### IT 123251-89-8

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(Tat peptide sequence; use of HIV Tat peptides complexed with semiconductor nanocrystals for enhancing transport across cell membranes and their use in high throughput drug screening assays)

RN 123251-89-8 HCAPLUS

CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

L59 ANSWER 4 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:207840 HCAPLUS

DN 142:274073

TI Compositions and methods for treating cellular response to injury and other proliferating cell disorders regulated by hyaladherin and hyaluronans

IN Turley, Eva A.; Cruz, Tony F.

PA Can.

SO U.S., 115 pp., Cont.-in-part of U.S. Ser. No. 541,522, abandoned. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 3

T T TIA	J11 J							
	PATENT 1	NO.	KIND	DATE	API	PLICATION NO.	DATE	
ΡI	US 68642	235	B1	20050308	US	2000-685010	20001005	<
	US 2003	100490	A1	20030529	US	2001-978309	20011015	<
	US 6911	129	B2	20050628				
	US 20050	058646	A1	20050317	US	2004-898675	20041129	<
	US 20050	065085	A1	20050324	US	2004-892831	20041129	<
PRAI	US 1999-	-127457P	P	19990401	<			
	US 2000-	-541522	B2	20000403	<			
	US 2000-	-685010	A2	20001005	<			
	US 2001-	-978309	<b>A</b> 3	20011015	<			

AB The present invention provides compns. and methods for treating a tissue disorder associated with a response-to-injury process or proliferating cells in a mammal. The tissue disorders include fibrosis, inflammation, degeneration and invasive disorders such as those occur in cancerous cells. The invention provides methods for detecting hyaluronic acid in a sample comprising: incubating the sample with RHAMM polypeptide and with RHAMM-binding protein and detecting the complex formed by using antibody. The methods provided herein include administering to the mammal, an effective amount of a composition that alters the activity of transition mols. within a cell. Transition mols. are shown to be comprised of hyaladherins, hyaluronans and associated mols. that regulate the transitional phenotype.

## IT 410521-18-5 410521-34-5 410521-35-6 410521-42-5

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(synthetic peptide; compns. and methods for treating cellular response to injury and other proliferating cell disorders regulated by hyaladherin and hyaluronans)

### IT 410521-18-5

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(synthetic peptide; compns. and methods for treating cellular response

to injury and other proliferating cell disorders regulated by hyaladherin and hyaluronans)

RN 410521-18-5 HCAPLUS

CN L-Arginine, L-arginylglycylglycylglycyl-L-arginylglycyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

## PAGE 2-A

$$H_{2N}$$
 $H_{NH}$ 
 $(CH_{2})$ 
 PAGE 2-B

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Referenced Author	Year   VOL	PG	Referenced Work	Referenced
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jan delaval - 7 september 2006

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Bauer	1985	137	173		HCAPLUS
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Fell	1993	ĺ	Ì	US 5204244 A	HCAPLUS
Fell	1996	1	ĺ	IUS 5482856 A	HCAPLUS
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Mulligan	11979	277	108	Nature	HCAPLUS
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DN
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    Branched compounds containing bioactive molecules and targeting moieties
ΤI
    for cellular delivery
IN
    Vargeese, Chandra; Haeberli, Peter; Wang, Weimin; Chen, Tongqian
PΑ
    Sirna Therapeutics, Inc., USA
SO
    U.S. Pat. Appl. Publ., 143 pp., Cont.-in-part of U.S. Ser. No. 427,160.
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    English
FAN.CNT 238
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MARPAT 142:1728
Branched compds. comprising conjugates of bioactive mols. (such
as ribozymes or siRNA's) and targeting moieties are disclosed.
                                                                  Thus,
siRNA conjugated to branched structures containing cholesterol or
fatty alkyl group were prepared These siRNA conjugates exhibited
vastly improved liver pharmacokinetics in mice relative to the
unconjugated siRNAs.
123251-89-8
RL: PRP (Properties)
   (unclaimed sequence; branched compds. containing bioactive mols. and
   targeting moieties for cellular delivery)
123251-89-8
RL: PRP (Properties)
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123251-89-8 HCAPLUS
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OS

AB

TΤ

IT

RN

CN

L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-

arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

L59 ANSWER 6 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:936107 HCAPLUS

DN 141:389814

TI Ionic complexes of macromolecules for transdermal delivery of therapeutic nucleic acids or proteins

IN Waugh, Jacob; Dake, Michael

PA Essentia Biosystems, Inc., USA

SO U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of U.S. Ser. No. 910,432. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 4

PATENT NO. KIND DATE APPLICATION NO. DATE

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AB
    Methods of delivering therapeutic nucleic acids across the skin are
     described. The complexes have a core component that is pos. charged at
     physiol. pH. This forms a complex with neq. charged moieties that may
     include: an imaging agent; a targeting agent; a nucleic acid such as a
     ribozyme, an antisense nucleic acid, or an expression cassette; an
     expression cassette for a persistence factor gene that maintains the
     nucleic acid as an episome; or some other therapeutic agent. The compns.
     can be prepared with components useful for targeting the delivery of the
     compns. as well as imaging components. Use of a C- and N-terminal
     modified polylysine (150000 mol. weight) to deliver plasmids to aortic smooth
     muscle cells is demonstrated. Similar carriers were used to deliver the
     cosmetic protein Botox.
IT
     123251-89-8D, N- and C-terminal glycine addition derivs.
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (complexes with nucleic acids; ionic complexes of macromols. for
        transdermal delivery of therapeutic nucleic acids)
ΙT
     123251-89-8D, N- and C-terminal glycine addition derivs.
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
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        (complexes with nucleic acids; ionic complexes of macromols. for
        transdermal delivery of therapeutic nucleic acids)
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     123251-89-8 HCAPLUS
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Absolute stereochemistry.

arginyl-L-arginyl- (9CI) (CA INDEX NAME)

CN

L-Arginine, L-arginyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-

PAGE 1-A

L59 ANSWER 7 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:817391 HCAPLUS

DN 141:320008

TI Chimeric fibroblast growth factor 2 with increased cell-penetrating activity and therapeutic uses thereof

IN Olwin, Bradley B.; Rosenthal, Richard Scott

PA The Regents of the University of Colorado, USA

SO U.S., 42 pp. CODEN: USXXAM

DT Patent

LA English

FAN. CNT 1

E AN.	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6800286	В1	20041005	US 1999-377675	19990819 <
PRAI	US 1998-97160P	P	19980819	<	
AB	A chimeric fibrobla	st grow	th factor	protein and recombinant	nucleic acid

mol. encoding the same are disclosed. The chimeric fibroblast growth factor protein is characterized by: fibroblast growth factor biol. activity in the absence of heparan sulfate and, entry into a living cell in the absence of a receptor that binds to FGF. Also disclosed are a method of making the chimeric fibroblast growth factor protein and methods of using the chimeric fibroblast growth factor protein to promote fibroblast growth factor activity in a cell and to enhance a biol. process associated with fibroblast growth factor activity.

IT 123251-89-8

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(amino acid sequence; chimeric fibroblast growth factor 2 with increased cell-penetrating activity and therapeutic uses thereof)

IT 123251-89-8

RN

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(amino acid sequence; chimeric fibroblast growth factor 2 with increased cell-penetrating activity and therapeutic uses thereof) 123251-89-8 HCAPLUS

CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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Referenced Author (RAU)	Year   VOL  (RPY) (RVL	(RPG)	Referenced Work   (RWK)	Referenced   File
Anon	-+ <del>-+</del> ====:  1991	-+=====: 	-+====================================	HCAPLUS
Anon	11997	i	IWO 9712912	HCAPLUS
Derossi	11994   269	110444	J Biol Chem	HCAPLUS
Femig	1994  5	1353	Progress in Growth	F
Fiddes	1997	1	IUS 5604293 A	HCAPLUS
Frankel	1998	1	IUS 5804604 A	HCAPLUS
Joliot	1999	1	IUS 5888762 A	HCAPLUS
Perez	1992  102	1717	J Cell Sci	HCAPLUS

L59 ANSWER 8 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ΑN 2004:802546 HCAPLUS

DN 141:319980

ΤI RNA interference-mediated inhibition of gene expression using chemically modified short interfering nucleic acids

Mcswiggen, James; Chowrira, Bharat; Beigelman, Leonid; Macejak, Dennis; IN Zinnen, Shawn; Pavco, Pamela; Haeberli, Peter; Morrissey, David; Fosnaugh, Kathy; Jamison, Sharon; Usman, Nassim; Thompson, James; Vargeese, Chandra; Wang, Weimin; Chen, Tongqian; Vaish, Narendra

PΑ

SO U.S. Pat. Appl. Publ., 407 pp., Cont.-in-part of U.S. Ser. No. 427,160. CODEN: USXXCO

DTPatent

LA English

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AB

ΙT

The present invention concerns methods and reagents useful in modulating gene expression in a variety of applications, including use in therapeutic, diagnostic, target validation, and genomic discovery applications. Specifically, the invention relates to synthetic chemical modified small nucleic acid mols., such as short interfering nucleic acid (siNA), short interfering RNA (siRNA), double-stranded RNA (dsRNA), micro-RNA (miRNA), and short hairpin RNA (shRNA) mols. capable of mediating RNA interference (RNAi) against target nucleic acid sequences. Introduction of chemical modified nucleotides into nucleic acid mols. provides a powerful tool in overcoming potential limitations of in vivo stability and bioavailability inherent to native RNA mols. Unlike native unmodified siRNA, chemical modified siNA can also minimize the possibility of activating interferon activity in humans. Modifications are described including pyrimidine or purine nucleotides with 2'-deoxy-2'-fluoro or 2'-O-Me groups, phosphorothioate backbone modification, terminal residues comprising inverted deoxy thymidine or inverted deoxy abasic moieties, linking the sense and antisense strands with glyceryl succinate or dodecanoic acid or other linkers, and conjugation of targeting ligands (N-acetylgalactosamine, pteroic acid, peptides, or phospholipids) to the oligonucleotide termini. Thus, the serum stability of siNA constructs consisting of all RNA nucleotides containing two thymidine nucleotide overhangs have a half-life in human serum of 15 s, whereas chemical modified siNA constructs remained stable in serum for 1 to 3 days depending on the extent of modification. The small nucleic acid mols. are useful in the treatment of any disease or condition that responds to modulation of gene expression or activity in a cell, tissue, or organism. Three nuclease-resistant siNA mols. targeting site 1580 of hepatitis B virus RNA are designed using Stab 7/8 chemical and a 5'-terminal conjugate moiety (a branched cholesterol conjugate, a branched phospholipid conjugate, and a polyethylene glycol conjugate) showed significant stability in human and mouse serum (t1/2 = 10-408 h) and human liver extract (t1/2 = 28-43 h); the most stable siNA with all purine positions in the antisense strand with 2'-O-Me nucleotides had a half-life of 816 h in human liver extract 123251-89-8

RL: PRP (Properties)

(unclaimed sequence; rNA interference-mediated inhibition of gene

expression using chemical modified short interfering nucleic acids) 123251-89-8

RL: PRP (Properties)

(unclaimed sequence; rNA interference-mediated inhibition of gene expression using chemical modified short interfering nucleic acids)

RN 123251-89-8 HCAPLUS

IT

CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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PAGE 2-A

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TI Branched compounds containing bioactive molecules and targeting moieties for cellular delivery

IN Vargeese, Chandra; Haeberli, Peter; Wang, Weimin; Chen, Tongqian

PA Ribozyme Pharmaceuticals, Inc., USA

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MARPAT 141:34630
Branched compds. comprising conjugates of bioactive mols. (such
as ribozymes or siRNA's) and targeting moieties are disclosed.
siRNA conjugated to branched structures containing cholesterol or
fatty alkyl group were prepared These siRNA conjugates exhibited
vastly improved liver pharmacokinetics in mice relative to the
unconjugated siRNAs.
123251-89-8
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IT

OS

AΒ

RL: PRP (Properties)

(unclaimed sequence; branched compds. containing bioactive mols. and targeting moieties for cellular delivery)

IT 123251-89-8

RL: PRP (Properties)

(unclaimed sequence; branched compds. containing bioactive mols. and targeting moieties for cellular delivery)

RN 123251-89-8 HCAPLUS

CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-Larginyl-L-arginyl- (9CI) (CA INDEX NAME)

PAGE 1-A

L59 ANSWER 10 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:310820 HCAPLUS

DN 140:332504

TI Fusion proteins comprising IF1 peptides for regulating endogenous inhibitor of ATP synthase, and methods of treatment of diabetes

IN Anderson, Christen M.; Clevenger, William

PA USA

SO U.S. Pat. Appl. Publ., 72 pp., Cont.-in-part of U.S. Ser. No. 709,189, abandoned.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 4

PATENT NO. KIND DATE APPLICATION NO. DATE -----\_---PΙ US 2004072739 A1 20040415 US 2001-796076 20010227 <--WO 2002068680 A2 20020906 WO 2002-US6090 20020227 <--

jan delaval - 7 september 2006

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    The present invention provides compns. and methods for altering
AΒ
    mitochondrial ATP metabolism, including compns. having fusion proteins
     comprising IF1 (ATPase F1 inhibitor)-derived sequences, as well as binding
     and functional assays exploiting IF1 interactions with ATP synthase.
     disclosed are methods for screening assays for a compound capable of
     reducing mitochondrial ATP hydrolysis and/or increasing mitochondrial ATP
     synthesis, including pharmaceutical compns. identified by such methods.
     The invention also provides methods for treating diabetes, and in
     particular, type 2 diabetes mellitus, using an agent identified according
     to the disclosed methods. An IF1 fusion protein containing a His tag
     sequence, a tat cell transport sequence, a mitochondrial targeting
     sequence and a peptide of rat IF1 was prepared and tested in INS-1 cells.
     The fusion protein induced glucose stimulated insulin secretion in a dose
     dependent manner.
IT
     455876-60-5
     RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
     (Biological study)
        (cell transport sequence, in IF1 fusion protein; fusion proteins
        comprising IF1 peptides for regulating endogenous inhibitor of ATP
        synthase, and methods of treatment of diabetes)
IT
     455876-60-5
     RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
     (Biological study)
        (cell transport sequence, in IF1 fusion protein; fusion proteins
        comprising IF1 peptides for regulating endogenous inhibitor of ATP
        synthase, and methods of treatment of diabetes)
RN
     455876-60-5 HCAPLUS
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Absolute stereochemistry.

(CA INDEX NAME)

CN

L-Arginine, L-arginyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-

PAGE 1-B

L59 ANSWER 11 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:950457 HCAPLUS

DN 140:26909

TI Antibodies that immunospecifically bind to BLyS and their use in diagnosis and treatment of autoimmune disease

IN Ruben, Steven M.; Barash, Steven C.; Choi, Gil H.; Vaughan, Tristan; Hilbert, David

PA USA

SO U.S. Pat. Appl. Publ., 186 pp., Cont.-in-part of U.S. Ser. No. 880,748. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 19

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

jan delaval - 7 september 2006

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AB The present invention relates to antibodies and related mols. that immunospecifically bind to BLyS (B lymphocyte stimulator). The present invention also relates to methods and compns. for detecting or diagnosing a disease or disorder associated with aberrant BLyS expression or inappropriate function of BLyS comprising antibodies or fragments or variants thereof or related mols. that immunospecifically bind to BLyS. The present invention further relates to methods and compns. for preventing, treating or ameliorating a disease or disorder associated with aberrant BLyS expression or inappropriate BLyS function comprising administering to an animal an effective amount of one or more antibodies or fragments or variants thereof or related mols. that immunospecifically bind to BLyS.

# IT 389116-42-1

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; antibodies that immunospecifically bind to BLyS and their use in diagnosis and treatment of autoimmune disease)

### IT 389116-42-1

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; antibodies that immunospecifically bind to BLyS and their use in diagnosis and treatment of autoimmune disease)

RN 389116-42-1 HCAPLUS

CN L-Arginine, L-arginyl-L-leucyl-L-isoleucyl-L-arginyl-L-lysyl-L-alanyl- (9CI) (CA INDEX NAME)

L59 ANSWER 12 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:930859 HCAPLUS

DN 140:14513

TI Identification and therapeutic use of peptides that facilitate uptake and cytoplasmic and nuclear transport of proteins, DNA and viruses

IN Robbins, Paul D.; Mi, Zhibao; Frizzell, Raymond; Glorioso, Joseph C.; Gambotto, Andrea; Mai, Jeffrey C.

PA US

SO U.S. Pat. Appl. Publ., 140 pp., Cont.-in-part of U.S. Ser. No. 75,869. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 2003219826	 A1	20031127	US 2003-366493	20020212
ĽΙ	US 6881825	B1	20051127	US 2003-366493 US 2000-653182	20030212 < 20000831 <
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The present invention relates to internalizing peptides which facilitate the uptake and transport of cargo into the cytoplasm and nuclei of cells as well as methods for the identification of such peptides. The internalizing peptides of the present invention are selected for their ability to efficiently internalize cargo into a wide variety of cell types both in vivo and in vitro. The method for identification of the internalizing peptides of the present invention comprises incubating a target cell with a peptide display library, isolating peptides with internalization characteristics and determining the ability of said peptide to internalize cargo into a cell. The peptides of the invention are useful in therapeutic applications, such as: stimulating the immune response in a

subject; selectively inducing apoptosis in cells, such as cancer and arthritic cells; facilitatating transfer of proteins and peptides to the lung for treatment of cystic fibrosis, lung inflammation or injury. 148796-87-6P

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); CST (Combinatorial study, unclassified); PRP (Properties); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)

(identification and therapeutic use of peptides that facilitate uptake and cytoplasmic and nuclear transport of proteins, DNA and viruses)
148796-87-6P

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); CST (Combinatorial study, unclassified); PRP (Properties); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)

(identification and therapeutic use of peptides that facilitate uptake and cytoplasmic and nuclear transport of proteins, DNA and viruses)

RN 148796-87-6 HCAPLUS
CN L-Arginine, L-arginyl

IT

ΙT

L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

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L59 ANSWER 13 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
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     2003:930717 HCAPLUS
    140:8758
DN
    Membrane-permeant peptide complexes for medical imaging, diagnostics, and
ΤI
IN
     Piwnica-Worms, David
PΑ
     USA
SO
     U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of U.S. Ser. No. 557,465.
     CODEN: USXXCO
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LA
     English
FAN.CNT 5
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            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
            LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI
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GQ, GW, ML, MR, NE, SN, TD, TG

A1

A1

Ρ

A2

GB 2413076

PRAI US 1998-90087P

US 2006166881

US 1999-336093

US 2000-557465 A2 20000425 <-US 2003-368280 A 20030218
US 2003-374035 A 20030225
WO 2004-US4752 A 20040218

AB Methods and compns. for medical imaging, evaluating intracellular processes and components, radiotherapy of intracellular targets, and drug delivery by the use of novel cell membrane-permeant peptide conjugate coordination and covalent complexes having target cell specificity are provided. Kits for conjugating radionuclides and other metals to peptide coordination complexes are also provided. Examples are provided of 99cTc-labeled Tat peptide chelate conjugates, their preparation, uptake by human tumor cells, and applications in imaging.

IT 143413-47-2 627881-61-2 627881-75-8D,

biotinylated

RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT 143413-47-2

RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

RN 143413-47-2 HCAPLUS

CN L-Arginine, L-arginyl-L

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    139:235379
ΤI
    Histidine copolymer for drug delivery
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IN Mixson, A. James

PA

U.S. Pat. Appl. Publ., 43 pp., Cont.-in-part of U.S. Ser. No. 18,103. SO CODEN: USXXCO

 $\mathsf{DT}$ Patent LA English

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AB The invention provides a branched transport polymer characterized as having at least 10 amino acids and a ratio of histidine to non-histidine amino acids greater than 1.5, said branched transport polymer comprising one or more backbones, one or more terminal branches, and optionally, one or more non-terminal branches. The branched transport polymer may be associated with a pharmaceutical agent to form a pharmaceutical agent delivery composition useful for in vivo therapies based on local injection.

IT 349451-29-2

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(histidine copolymer for drug delivery)

IT 349451-29-2

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(histidine copolymer for drug delivery)

RN 349451-29-2 HCAPLUS

CN L-Arginine, L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

PAGE 2-A

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L59 ANSWER 15 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:532743 HCAPLUS

DN 139:99852

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     Human anti-BLyS antibodies for diagnosis, prognosis and therapy of
     autoimmune, inflammatory, infectious and proliferative diseases
IN
     Ruben, Steven M.; Barash, Steven C.; Choi, Gil H.; Vaughan, Tristan J.;
     Hilbert, David
PA
     Human Genome Sciences, Inc., USA
SO
     PCT Int. Appl., 3099 pp.
     CODEN: PIXXD2
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FAN.CNT 19
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     The present invention relates to antibodies and related mols. that
AB
     immunospecifically bind to BLyS or B lymphocyte stimulator. The present
     invention also relates to methods and compns. for detecting or diagnosing
     a disease or disorder associated with aberrant BLyS expression or
     inappropriate function of BLyS comprising antibodies or fragments or
     variants thereof or related mols. that immunospecifically bind to BLyS.
     The present invention further relates to methods and compns. for
     preventing, treating or ameliorating a disease or disorder associated with
     aberrant BLyS expression or inappropriate BLyS function comprising
     administering to an animal an effective amount of one or more antibodies or
     fragments or variants thereof or related mols. that immunospecifically
     bind to BLyS.
ΙT
     389116-42-1
     RL: PRP (Properties)
        (unclaimed sequence; human anti-BLyS antibodies for diagnosis,
       prognosis and therapy of autoimmune, inflammatory, infectious and
       proliferative diseases)
IT
     389116-42-1
     RL: PRP (Properties)
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(unclaimed sequence; human anti-BLyS antibodies for diagnosis, prognosis and therapy of autoimmune, inflammatory, infectious and proliferative diseases)

RN 389116-42-1 HCAPLUS

CN L-Arginine, L-arginyl-L-leucyl-L-isoleucyl-L-arginyl-L-lysyl-L-alanyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

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L59 ANSWER 16 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
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AN 2003:511956 HCAPLUS

DN 139:65738

TI Methods of detecting a cell

IN Tse, Eric; Rabbitts, Terence

PA UF

SO U.S. Pat. Appl. Publ., 29 pp., Cont.-in-part of Appl. No. PCT/GB/01540. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2																			
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AB We describe a method of inducing a cell to generate a detectable signal. The method comprises the steps of providing a cell comprising an entity and providing a first reporter and a second reporter, in which a stable interaction of the first reporter with the second reporter leads to generation of a detectable signal. The first reporter and the second reporter are allowed to bind to the entity, such that binding of the reporters to the entity leads to stable interaction of the first reporter with the second reporter and generation of a signal. The signal is preferably the activation of a cell killing mechanism.

IT 123251-89-8

RL: PRP (Properties)

(unclaimed sequence; methods of detecting a cell)

IT 123251-89-8

RL: PRP (Properties)

(unclaimed sequence; methods of detecting a cell)

RN 123251-89-8 HCAPLUS

CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

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ANSWER 17 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
L59
    2003:454824 HCAPLUS
DN
    139:30852
    Cell-permeable peptide inhibitors of the JNK signal transduction pathway
ΤI
    Bonny, Christophe
PA
    U.S. Pat. Appl. Publ., 39 pp., Cont.-in-part of U.S. Ser. No. 503,954.
    CODEN: USXXCO
DT
     Patent
LA
    English
FAN.CNT 3
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The invention provides cell-permeable peptides that bind to JNK proteins and inhibit JNK-mediated effects in JNK-expressing cells. The peptides, referred to herein as JNK peptide inhibitors, decrease the downstream cell-proliferative effects of c-Jun amino terminal kinase (JNK). The JNK inhibitor peptides can be present as polymers of L-amino acids or D-amino acids. The invention includes a method of treating a pathophysiol. associated with activation of JNK in a cell or cells. The invention further provides a method of preventing or treating hearing loss in a subject. The method includes administering to the subject a cell-permeable bioactive peptide which prevents damage to the hair cell stereocilia, hair cell apoptosis, or neuronal apoptosis. He invention also contemplates a method of inhibiting pancreatic islet cell death, where the method includes contacting a pancreatic islet cell with a cell-permeable bioactive peptide such that pancreatic cell death is inhibited.

IT 123251-89-8 448950-42-3

RL: PRP (Properties)

(Unclaimed; cell-permeable peptide inhibitors of the JNK signal transduction pathway)

IT 123251-89-8

RL: PRP (Properties)

(Unclaimed; cell-permeable peptide inhibitors of the JNK signal transduction pathway)

RN 123251-89-8 HCAPLUS

CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

PAGE 1-A

L59 ANSWER 18 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:435239 HCAPLUS

DN 139:32886

TI Identification of peptides that facilitate uptake and cytoplasmic and/or nuclear transport of proteins, DNA and viruses

IN Robbins, Paul D.; Mi, Zhibao; Frizzell, Raymond; Glorioso, Joseph C.; Gambotto, Andrea

PA USA

SO U.S. Pat. Appl. Publ., 110 pp., Cont.-in-part of U.S. Ser. No. 653,182. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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    The present invention relates to internalizing peptides which facilitate
AΒ
    the uptake and transport of cargo into the cytoplasm and nuclei of cells
    as well as methods for the identification of such peptides. The
     internalizing peptides of the present invention are selected for their
    ability to efficiently internalize cargo into a wide variety of cell types
    both in vivo and in vitro. The method for identification of the
     internalizing peptides of the present invention comprises incubating a
    target cell with a peptide display library, isolating peptides with
     internalization characteristics and determining the ability of said peptide to
     internalize cargo into a cell. Various cells and cell lines were panned
    with a phage display library for internalizing peptides. Internalizing
    peptides PTD-5 and Airway peptide were prepared and coupled to
     \beta-galactosidase. PTD-5 achieved more efficient uptake of \beta-gal
     in comparison to Airway peptide in Calu3 cells, but the Airway peptide
    demonstrated greater specificity for Calu3 cells. PTD-5 indiscriminately
     facilitates uptake in multiple cell types in the murine lung, whereas
    Airway peptide facilitates uptake specifically into lung epithelia.
    NF-kB-mediated apoptosis in islet cells was inhibited with a peptide
    containing PTD-5 and IkB.
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     148796-87-6
    RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
     (Biological study)
        (effect on \beta-galactosidase uptake; identification and use of
       peptides that facilitate uptake and cytoplasmic and/or nuclear
        transport of proteins, DNA and viruses)
ΙT
    148796-87-6
    RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
     (Biological study)
        (effect on \beta-galactosidase uptake; identification and use of
       peptides that facilitate uptake and cytoplasmic and/or nuclear
       transport of proteins, DNA and viruses)
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Absolute stereochemistry.

148796-87-6 HCAPLUS

RN

CN

L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-

arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

## PAGE 2-A

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L59 ANSWER 19 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:118585 HCAPLUS

DN 138:158767

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ΤI
    Intracellular delivery of biological effectors
ΙN
    Bonny, Christophe
PΑ
    Universite De Lausanne, Switz.
    U.S. Pat. Appl. Publ., 20 pp., Cont.-in-part of U.S. Ser. No. 977,831.
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    The invention relates to sequences of amino acids with the capacity to
    facilitate transport of an effector across a biol. membrane. More
    specifically, the present invention relates to novel peptide transporters
    that specifically target certain cell types for the intracellular delivery
    of drugs and therapeutic agents.
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    412271-64-8
    RL: BSU (Biological study, unclassified); PRP (Properties); THU
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RN
    412271-64-8 HCAPLUS
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    L-Arginine, L-arginylglycyl-L-asparaginyl-L-arginylglycyl-L-alanyl- (9CI)
     (CA INDEX NAME)
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- AN 2003:97803 HCAPLUS
- DN 138:147741
- TI Compositions and methods for regulating endogenous inhibitor of ATP synthase, including treatment for diabetes
- IN Anderson, Christen Marie; Clevenger, William
- PA Mitokor, USA
- SO U.S. Pat. Appl. Publ., 79 pp., Cont.-in-part of U.S. Ser. No. 796,076. CODEN: USXXCO
- DT Patent
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- FAN.CNT 4

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PRAI	US 1999-164622P	P	19991110	<	
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The present invention provides compns. and methods for altering mitochondrial ATP metabolism, including compns. having fusion proteins comprising IF1 polypeptide-derived sequences, as well as binding and functional assays exploiting IF1 interactions with ATP synthase. Also disclosed are methods for identifying an agent capable of reducing mitochondrial ATP hydrolysis and/or increasing mitochondrial ATP synthesis, including pharmaceutical compns. identified by such methods. The invention also provides methods for treating diabetes, and in particular, type 2 DM, using an agent identified according to the disclosed methods. An IF1 fusion protein containing a His tag sequence, a tat cell transport sequence, a mitochondrial targeting sequence and a peptide of rat IF1 was prepared and tested in INS-1 cells. The fusion protein induced glucose stimulated insulin secretion in a dose dependent manner.

#### IT 455876-60-5

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(cell transport sequence in IF1 fusion protein; compns. and methods for regulating endogenous inhibitor of ATP synthase, including treatment for diabetes)

### IT 455876-60-5

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(cell transport sequence in IF1 fusion protein; compns. and methods for regulating endogenous inhibitor of ATP synthase, including treatment for diabetes)

RN 455876-60-5 HCAPLUS

CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-(9CI) (CA INDEX NAME)

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L59 ANSWER 21 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:905731 HCAPLUS

DN 138:14152

TI Preparation of enzymic ribonucleic acid peptide conjugates as antitumor and antiviral agents and compositions for cellular delivery

IN Beigelman, Leonid; Matulic-Adamic, Jasenka; Vargeese, Chandra; Karpeisky, Alexander; Blatt, Lawrence; Shaffer, Christopher

PA Ribozyme Pharmaceuticals, Inc, USA

SO PCT Int. Appl., 220 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 238

PATENT NO. KIND DATE APPLICATION NO. DATE

jan delaval - 7 september 2006

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            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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GΙ

This invention features peptide nucleotide conjugates I wherein AB each R1-R8 are independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, or a protecting group, each "n" is independently an integer from 0 to about 200, R9 is a straight or branched chain alkyl, substituted alkyl, aryl, or substituted aryl, and R2 is a phosphorus containing group, nucleoside, nucleotide, small mol., nucleic acid, or a solid support comprising a linker., degradable linkers, compns., methods of synthesis, and applications thereof, including folate, galactose, galactosamine, N-acetyl galactosamine, PEG, phospholipid, peptide and human serum albumin (HAS) derived conjugates of biol. active compds., including antibodies, antivirals, chemotherapeutics, peptides, proteins, hormones nucleosides, nucleotides, non-nucleosides, and nucleic acids including enzymic nucleic acids, DNAzymes, allozymes, antisense, dsRNA, siRNA, triplex oligonucleotides, 2,5-A chimeras, decoys and aptamers. Thus, 1-0-(4-monomethoxytrityl)-N-(12'-hydroxydodecanoyl-2acetamido-3,4,6-tri-O-acetyl-2-deoxy-3-D-galactopyranose)-D-threoninol 3-0-(2-cyanoethyl, N, N-diisopropylphosphorami-dite) was prepared and incorporated into RNA. A method of treating a cancer patient, comprising contacting cells of patient wherein said cancer is breast cancer, lung cancer, colorectal cancer, brain cancer, esophageal cancer, stomach cancer, bladder cancer, pancreatic cancer, cervical cancer, head and neck cancer, ovarian cancer, melanoma, lymphoma, glioma, or multidrug resistant cancers and/or viral infections including HIV, HBV, HCV, CMV, RSV, HSV, poliovirus, influenza, rhinovirus, west nile virus, Ebola virus, foot and mouth virus, and papilloma.

Ι

IT 123251-89-8

IT

RL: PRP (Properties)

(unclaimed sequence; preparation of enzymic RNA peptide conjugates
 as antitumor and antiviral agents and compns. for cellular delivery)
123251-89-8

RL: PRP (Properties)

(unclaimed sequence; preparation of enzymic RNA peptide conjugates as antitumor and antiviral agents and compns. for cellular delivery)

RN 123251-89-8 HCAPLUS

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Absolute stereochemistry.

PAGE 1-A

L59 ANSWER 22 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:857449 HCAPLUS

DN 137:380978

TI Human nucleic acids and corresponding proteins useful in the detection and treatment of various cancers

IN Jakobovits, Aya; Challita-Eid, Pia M.; Faris, Mary; Ge, Wangmao; Hubert,
Rene S.; Morrison, Karen; Morrison, Robert Kendall; Raitano, Arthur B.

PA Agensys, Inc., USA

SO PCT Int. Appl., 1021 pp.

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     are differentially expressed in cancer; PCR amplification, cloning, and
     sequencing of gene fragments from SSH yield the full-length cDNAs.
    Consequently, the gene products provide diagnostic, prognostic,
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     fragment thereof, their encoded proteins, or variants or fragments
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(peptide epitope; human nucleic acids and corresponding proteins useful in the detection and treatment of various cancers)

RN 473327-31-0 HCAPLUS

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L59 ANSWER 23 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:857447 HCAPLUS

DN 137:380976

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    active or passive immunization. [This abstract record is one of 16 records
    for this document necessitated by the large number of index entries required
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RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(peptide epitope; human nucleic acids and corresponding proteins useful in the detection and treatment of various cancers)
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CN

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TI Human nucleic acids and corresponding proteins useful in the detection and treatment of various cancers

IN Jakobovits, Aya; Challita-Eid, Pia M.; Faris, Mary; Ge, Wangmao; Hubert,
Rene S.; Morrison, Karen; Morrison, Robert Kendall; Raitano, Arthur B.

PA Agensys, Inc., USA

SO PCT Int. Appl., 1021 pp.

CODEN: PIXXD2

DT Patent

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FAN.CNT 30

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jan delaval - 7 september 2006

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     Eighteen genes and their resp. encoded proteins, and variants thereof, are
AB
     described wherein the gene exhibits restricted expression in normal adult
     tissue and is overexpressed in various cancers. Suppression subtractive
```

hybridization (SSH) is used to identify cDNAs corresponding to genes that

are differentially expressed in cancer; PCR amplification, cloning, and sequencing of gene fragments from SSH yield the full-length cDNAs. Consequently, the gene products provide diagnostic, prognostic, prophylactic, and/or therapeutic targets for cancer. The genes or fragment thereof, their encoded proteins, or variants or fragments thereof, can be used to elicit a humoral or cellular immune response; antibodies or T cells reactive with the gene products can be used in active or passive immunization. [This abstract record is one of 16 records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

IT 473327-31-0 473327-74-1 473328-45-9

RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(peptide epitope; human nucleic acids and corresponding proteins useful in the detection and treatment of various cancers)

IT 473327-31-0

RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(peptide epitope; human nucleic acids and corresponding proteins useful in the detection and treatment of various cancers)

RN 473327-31-0 HCAPLUS

CN L-Arginine, L-arginyl-L-alanyl-L- $\alpha$ -glutamyl-L-leucyl-L-arginyl-L- $\alpha$ -glutamyl-L- $\alpha$ -aspartyl-L- $\alpha$ -glutamyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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PAGE 2-A

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L59 ANSWER 25 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
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    137:210960
    Compositions and methods for regulating endogenous inhibitor of ATP
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    synthase, including a treatment for diabetes
ΙN
    Anderson, Christen M.; Clevenger, William
PA
    Mitokor, USA
SO
    PCT Int. Appl., 184 pp.
    CODEN: PIXXD2
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    The present invention provides compns. and methods for altering
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AB The present invention provides compns. and methods for altering mitochondrial ATP metabolism, including compns. having fusion proteins comprising IF1 polypeptide-derived sequences, as well as binding and functional assays exploiting IF1 interactions with ATP synthase. Also disclosed are methods for identifying an agent capable of reducing mitochondrial ATP hydrolysis and/or increasing mitochondrial ATP synthesis, including pharmaceutical compns. identified by such methods. The invention also provides methods for treating diabetes, and in particular, type 2 DM, using an agent identified according to the disclosed methods.

### IT 455876-60-5

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (unclaimed sequence; compns. and methods for regulating endogenous

inhibitor of ATP synthase, including a treatment for diabetes) IT 455876-60-5

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (unclaimed sequence; compns. and methods for regulating endogenous inhibitor of ATP synthase, including a treatment for diabetes)

RN 455876-60-5 HCAPLUS

CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

L59 ANSWER 26 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:615447 HCAPLUS

DN 137:190698

```
ΤI
     Enhanced oral and transcompartmental delivery of therapeutic or diagnostic
     agents
IN
     Paranjp, Pankaj; Stein, Stanley; Leibowitz, Michael J.; Sinko, Patrick J.;
    Minko, Tamara; Williams, Gregory C.; Zhang, Goubao; Pooyan, Shahrair;
     Park, Seong Hee; Qiu, Bo; Ramanathan, Srinivasan; Pooyan, Shahrair; et al.
     University of Medicine and Dentistry of New Jersey, USA; Rutgers, the
PA
     State University of New Jersey
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     PCT Int. Appl., 142 pp.
    CODEN: PIXXD2
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OS
    MARPAT 137:190698
    The invention is directed to pharmaceutical compns. and methods for
AB
    delivery of a therapeutic or diagnostic agent from one body compartment to
    one or more other body compartment by administering one of the following
    conjugates: a polymer having multiple functional groups at least
    one of which is covalently bound to a therapeutic or diagnostic agent, and
    at least one cell uptake promoter covalently bound to the therapeutic or
    diagnostic agent; or a polymer and at lest one cell uptake promoter bound
    thereto; the polymer further comprising multiple functional groups at
    least one of which is covalently bound a therapeutic or diagnostic agent.
IT
    448950-42-3
    RL: PRP (Properties)
        (unclaimed sequence; enhanced oral and transcompartmental delivery of
       therapeutic or diagnostic agents)
IT
    448950-42-3
    RL: PRP (Properties)
        (unclaimed sequence; enhanced oral and transcompartmental delivery of
       therapeutic or diagnostic agents)
RN
    448950-42-3 HCAPLUS
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Absolute stereochemistry.

L-lysyl-L-lysyl- (9CI) (CA INDEX NAME)

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L59 ANSWER 27 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:595029 HCAPLUS

DN 137:174885

TI Targeting delivery of apoptosis-regulating proteins affecting the permeability transition pore complex using fusion proteins with cell-specific antibodies

IN Edelman, Lena; Jacotot, Etienne; Briand, Jean-Paul

PA Institut Pasteur, Fr.; Centre National De La Recherche

SO PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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AΒ
     Fusion proteins of an apoptosis-regulating protein and a cell surface
     protein-specific antibody are used to target the apoptosis regulating
     protein to a specific cell type. The apoptosis regulating protein is
     preferably the Vpr peptide of HIV-1 or a fragment containing the amino acid
     motif H(F/S)RIG that interacts with mitochondrial inner membrane, adenine
     nucleotide translocation (ANT) protein of a cell. Binding of the fusion
     protein to the cell is followed by uptake of the protein and induction or
     inhibition of apoptosis of the cell. A vector encoding a fusion protein
     and a host cell carrying the vector are provided. The fusion proteins are
     useful for the targeted killing of cells such as cancer cells. The preparation
     of peptides inducing mitochondrial swelling (apoptosis-inducing) or
     inhibiting atractyloside-induced swelling (apoptosis-inhibiting) is
     demonstrated.
IT
     123251-89-8D, fusion products, conjugates, retroverso
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     (Uses)
        (as apoptosis inhibitor; targeting delivery of apoptosis-regulating
        proteins affecting permeability transition pore complex using fusion
        proteins with cell-specific antibodies)
     123251-89-8
ΙT
     RL: PRP (Properties)
        (unclaimed sequence; targeting delivery of apoptosis-regulating
        proteins affecting the permeability transition pore complex using
        fusion proteins with cell-specific antibodies)
ΙT
     123251-89-8D, fusion products, conjugates, retroverso
     analogs
     RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (as apoptosis inhibitor; targeting delivery of apoptosis-regulating
        proteins affecting permeability transition pore complex using fusion
        proteins with cell-specific antibodies)
RN
     123251-89-8 HCAPLUS
     L-Arginine, L-arginyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-
CN
     arginyl-L-arginyl- (9CI) (CA INDEX NAME)
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PAGE 1-A

L59 ANSWER 28 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ΑN 2002:521462 HCAPLUS

DN 137:88442

ΤI Incensole and furanogermacrens and compounds in treatment for inhibiting neoplastic lesions and microorganisms

ΙN Shanahan-Pendergast, Elisabeth

PA Ire.

so PCT Int. Appl., 68 pp. CODEN: PIXXD2

DTPatent

LA English

FAN. CNT 1

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PRAI IE 2001-2
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    WO 2002-IE1
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                                20020102
OS
    MARPAT 137:88442
AΒ
    The invention discloses the use of incensole and/or furanogermacrens,
     derivs. metabolites and precursors thereof in the treatment of neoplasia,
     particularly resistant neoplasia and immunodysregulatory disorders. These
     compds. can be administered alone or in combination with conventional
     chemotherapeutic, antiviral, antiparasite agents, radiation and/or
     surgery. Incensole and furanogermacren and their mixture showed antitumor
     activity against various human carcinomas and melanomas and antimicrobial
     activity against Staphylococcus aureus and Enterococcus faecalis.
IT
     153127-49-2, ALX40-4C
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (pharmaceutical formulation further containing; incensole and
        furanogermacrens and compds. as antitumor and antimicrobial agents)
IT
     153127-49-2, ALX40-4C
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (pharmaceutical formulation further containing; incensole and
        furanogermacrens and compds. as antitumor and antimicrobial agents)
RN
     153127-49-2 HCAPLUS
CN
     D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-
     arginyl-D-arginyl-D-arginyl-D-arginyl-, nonaacetate (9CI) (CA INDEX NAME)
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     CRN
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PAGE 1-A

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L59 ANSWER 29 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN AN 2002:293810 HCAPLUS

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    136:330522
ΤI
    Intracellular delivery of biological effectors
IN
    Bonny, Christophe
PA
    University of Lausanne, Switz.
SO
    PCT Int. Appl., 50 pp.
    CODEN: PIXXD2
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    WO 2001-IB2423
    The invention relates to a sequence of amino acids with the capacity to
AB
    facilitate transport of an effector across a biol. membrane. More
    specifically, the present invention relates to novel peptide transporters
    that specifically target certain cell types for the intracellular delivery
    of drugs and therapeutic agents.
IT
    412271-64-8
    RL: BSU (Biological study, unclassified); PEP (Physical, engineering or
    chemical process); PRP (Properties); PYP (Physical process); THU
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        (intracellular delivery of biol. effectors with peptide transporters)
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    (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
        (intracellular delivery of biol. effectors with peptide transporters)
    412271-64-8 HCAPLUS
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    L-Arginine, L-arginylglycyl-L-asparaginyl-L-arginylglycyl-L-alanyl- (9CI)
    (CA INDEX NAME)
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L59 ANSWER 30 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

PAGE 1-B

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ΑN
    2002:185291 HCAPLUS
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    136:242900
TΙ
     Site-specific DNA recombination with cell-permeable Cre recombinase fusion
    proteins containing a membrane translocation sequence or nuclear
     localization signal
ΙN
    Ruley, H. Earl; Jo, Daewoong
PΑ
    Vanderbilt University, USA
SO
     PCT Int. Appl., 70 pp.
    CODEN: PIXXD2
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LA
     English
FAN.CNT 1
     PATENT NO.
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                               DATE
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                                                                  DATE
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AΒ
    The present invention provides site-specific DNA recombinase fusion
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proteins containing a membrane translocation sequence, cDNAs, and uses in effecting site-specific DNA recombination in cells and in animals. Also provided are methods of determining the efficiency of protein transduction into cells; methods of detecting whether site-specific DNA recombination has occurred within a cell; methods of identifying compds. that modulate nuclear metabolism or protein trafficking, uptake, and/or excretion; and methods of identifying peptides that act as membrane translocation signals or that act as nuclear localization signals or other types of protein targeting signals. In the present study, recombinant fusion proteins bearing the 12 amino acid membrane translocation sequence (MTS) from the Kaposi fibroblast growth factor (FGF-4) were used to transduce enzymically active Cre proteins directly into mammalian cells. High levels of recombination were observed in a variety of cultured cell types and in all tissues examined in mice following i.p. administration. This represents the first use of protein transduction to induce the enzymic conversion of a substrate in living cells and animals and provides a rapid and efficient means to manipulate mammalian gene structure and function.

#### IT 136268-89-8

RL: PRP (Properties)

(unclaimed sequence; site-specific DNA recombination with cell-permeable Cre recombinase fusion proteins containing a membrane translocation sequence or nuclear localization signal)

## IT 136268-89-8

RL: PRP (Properties)

(unclaimed sequence; site-specific DNA recombination with cell-permeable Cre recombinase fusion proteins containing a membrane translocation sequence or nuclear localization signal)

RN 136268-89-8 HCAPLUS

CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

NH2

PAGE 2-A

L59 ANSWER 31 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:142874 HCAPLUS

DN 136:195329

ΤI Nucleic acid and corresponding protein sequences of human PHOR1-All and PHOR1-F5D6 useful in treatment and detection of cancer

IN Hubert, Rene S.; Raitano, Arthur B.; Faris, Mary; Challita-Eid, Pia M.; Ge, Wangmao; Jakobovits, Aya

PA Agensys, Inc., USA

PCT Int. Appl., 250 pp. SO CODEN: PIXXD2

DT Patent

LA

English FAN.CNT 1

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PATENT NO.
                      KIND
                             DATE
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                                                              DATE
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AB The present invention relates to novel genes, designated PHOR1-A11 and PHOR1-F5D6, that are over-expressed in prostate, ovarian, bladder, and kidney cancers. A degenerate oligo PCR strategy was utilized to identify these two family members of the G-protein coupled receptors. Northern blot anal. of PHOR1-A11 and PHOR1-F5D6 gene expression in normal tissues shows a restricted expression pattern in adult tissues. The nucleotide and amino acid sequences of PHOR1-A11 and PHOR1-F5D6 are provided. PHOR1-All has the highest homol. to a Marmota olfactory receptor with 83% identity and 92% similarity over the entire Marmota 237 amino acid sequence; PHOR1-F5D6 has 100% amino acid homol. to an olfactory receptor protein predicted from PAC clone RP5-988G15. PHOR1-All is localized to human chromosome 1q43, suggesting that it is a candidate gene for hereditary prostate cancer, whereas PHOR1-F5D6 is localized to 7q33-q35, a region frequently amplified or rearranged in cancer. The tissue-related profile of PHOR1-All and PHOR1-F5D6 in normal adult tissues, combined with the over-expression observed in prostate and other tumors, shows that PHOR1-All and PHOR1-F5D6 is aberrantly over-expressed in at least some cancers, and thus serves as a useful diagnostic and/or therapeutic target for cancers of tissues such as prostate. The PHOR1-All or PHOR1-F5D6 gene or fragment thereof, or its encoded protein or a fragment thereof, can be used to elicit an immune response.

# IT 398467-75-9

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(immunogenic peptide; nucleic acid and corresponding protein sequences of human PHOR1-All and PHOR1-F5D6 useful in treatment and detection of cancer)

#### IT 398467-75-9

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(immunogenic peptide; nucleic acid and corresponding protein sequences of human PHOR1-All and PHOR1-F5D6 useful in treatment and detection of cancer)

RN 398467-75-9 HCAPLUS

CN L-Arginine, L-arginyl-L- $\alpha$ -glutamyl-L-valyl-L-glutaminyl-L-arginyl-L-lysyl-L-alanyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

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- L59 ANSWER 32 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 2002:142749 HCAPLUS
- DN 136:195323
- TI Nucleic acid and corresponding protein sequences of human 83P2H3 and CaTrF2Ell useful in treatment and detection of cancer
- IN Raitano, Arthur B.; Challita-Eid, Pia M.; Faris, Mary; Saffran, Douglas C.; Afar, Daniel E. H.; Levin, Elana; Hubert, Rene S.; Ge, Wangmao; Jakobovits, Aya
- PA Agensys, Inc., USA
- SO PCT Int. Appl., 270 pp. CODEN: PIXXD2

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     PATENT NO.
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PRAI US 2000-226329P
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     WO 2001-US25782
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                                20010817 <--
AΒ
     The present invention relates to novel genes, designated 83P2H3 and
     CaTrF2E11, that are over-expressed in prostate, ovarian, bladder, kidney,
     and lung cancers. A degenerate oligo PCR strategy was utilized to
     identify these two family members of the calcium transporters. Northern
     blot anal. of 83P2H3 and CaTrF2E11 gene expression in normal tissues shows
     a restricted expression pattern in adult tissues. The nucleotide and
     amino acid sequences of 83P2H3 and CaTrF2E11 are provided. 83P2H3 is
     localized to human chromosome 7q34, whereas CaTrF2E11 is localized to
     12q24.1. The tissue-related profile of 83P2H3 and CaTrF2E11 in normal
     adult tissues, combined with the over-expression observed in prostate and
     other tumors, shows that 83P2H3 and CaTrF2E11 is aberrantly over-expressed
     in at least some cancers, and thus serves as a useful diagnostic and/or
     therapeutic target for cancers of tissues such as prostate. The 83P2H3 or
     CaTrF2E11 gene or fragment thereof, or its encoded protein or a fragment
     thereof, can be used to elicit an immune response.
ΙT
     399540-45-5
     RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
        (immunogenic peptide; nucleic acid and corresponding protein sequences
        of human 83P2H3 and CaTrF2E11 useful in treatment and detection of
        cancer)
IT
     399540-45-5
     RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
        (immunogenic peptide; nucleic acid and corresponding protein sequences
        of human 83P2H3 and CaTrF2E11 useful in treatment and detection of
        cancer)
RN
     399540-45-5 HCAPLUS
CN
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Absolute stereochemistry.

L-Arginine, L-arginyl-L-threonyl-L-asparaginyl-L-asparaginyl-L-arginyl-L-

threonyl-L-seryl-L-prolyl- (9CI) (CA INDEX NAME)

L59 ANSWER 33 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:107056 HCAPLUS

DN 136:166049

TI Molecular vaccine linking intercellular spreading protein to an antigen

IN Wu, Tzyy-Choou; Hung, Chien-Fu

PA The Johns Hopkins University, USA

SO PCT Int. Appl., 102 pp.

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CODEN: PIXXD2
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    English
FAN.CNT 1
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    Superior mol. vaccines comprise nucleic acids, including naked DNA and
AΒ
    replicon RNA, that encode a fusion polypeptide that includes an antigenic
    peptide or polypeptide against which an immune response is desired. Fused
    to the antigenic peptide is an intercellular spreading protein, in
    particular a herpes virus protein VP22 or a homolog or functional derivative
    thereof. Preferred spreading proteins are VP22 from HSV-1 and Marek's
    disease virus. The nucleic acid can encode any antigenic epitope of
    interest, preferably an epitope that is processed and presented by MHC
    class I proteins. Antigens of pathogenic organisms and cells such as
    tumor cells are preferred. Vaccines comprising HPV-16 E7 oncoprotein are
    exemplified. Also disclosed are methods of using the vaccines to induce
    heightened T cell mediated immunity, in particular by cytotoxic T
    lymphocytes, leading to protection from or treatment of a tumor.
ΙT
    397274-55-4
    RL: PRP (Properties)
       (unclaimed sequence; mol. vaccine linking intercellular spreading
       protein to an antigen)
ΙT
    397274-55-4
    RL: PRP (Properties)
       (unclaimed sequence; mol. vaccine linking intercellular spreading
       protein to an antigen)
    397274-55-4 HCAPLUS
RN
    L-Arginine, L-arginyl-L-arginyl-L-lysyl-L-arginyl-L-arginyl-L-
CN
    arginyl-L-arginyl- (9CI) (CA INDEX NAME)
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PAGE 1-A

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AN
    2002:72152 HCAPLUS
DN
    136:133605
ΤI
    Vaccine comprising a lung tumor associated antigen
IN
    Cassart, Jean-pol; Gaulis, Swann; Vinals y De Bassols, Carlota
PA
    Smithkline Beecham Biologicals SA, Belg.
SO
    PCT Int. Appl., 92 pp.
    CODEN: PIXXD2
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LA
    English
FAN.CNT 1
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            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
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L59 ANSWER 34 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI GB 2000-17512

A 20000717 <--

AB CASB761 polypeptides and polynucleotides and methods for producing such polypeptides by recombinant techniques are disclosed. Also disclosed are methods for utilizing CASB761 polypeptides and polynucleotides in diagnostics, and vaccines for prophylactic and therapeutic treatment of cancers, particularly lung cancer, lung preneoplasic lesions, autoimmune diseases, and related conditions.

IT 392654-62-5

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (vaccine comprising lung tumor-associated antigen CASB761 protein)

IT 392654-62-5

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (vaccine comprising lung tumor-associated antigen CASB761 protein)

RN 392654-62-5 HCAPLUS

CN L-Arginine, L-arginyl-L-arginyl-L-asparaginyl-L- $\alpha$ -glutamyl-L-arginyl-L- $\alpha$ -glutamyl-L-arginyl-L-asparaginyl- (9CI) (CA INDEX NAME)

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RETABLE

Referenced Author (RAU)	(RPY)   (RVL)   (RPG)	Referenced Work   Referenced   (RWK)   File
Ball, D		Proceedings of the N HCAPLUS
Black, B	1996  271  26659	
Del Amo Francisco, F	1993  1171  323	Biochimica et Biophy
Johnson, J	1990  346  858	Nature   HCAPLUS
Levesque, M	[2000 ]	US 6087168 A   HCAPLUS
Lo, L	1998  125  609	Development   HCAPLUS
Sommer, L	1995  15  1245	Neuron   HCAPLUS
Sunita, V	1996  180  605	Developmental Biolog
Yuji, S	1999  444  43	FEBS Letters

L59 ANSWER 35 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:31529 HCAPLUS

DN 136:117377

TI Antibodies to B lymphocyte stimulator (BLyS)

IN Ruben, Steven M.; Barash, Steven C.; Choi, Gil H.; Vaughan, Tristan; Hilbert, David

PA Human Genome Sciences, Inc., USA; Cambridge Antibody Technology Ltd.

SO PCT Int. Appl., 3148 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 19

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    The authors disclose the preparation and characterization of single-chain
AB
     antibodies that specifically bind to BLyS. The present invention also
     relates to methods and compns. for detecting, diagnosing, or treating a
     disease or disorder associated with aberrant BLyS expression.
ΙT
     389116-42-1
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        (amino acid sequence; heavy chain CDR3 for human antibodies to B
        lymphocyte stimulator)
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     389116-42-1
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        (amino acid sequence; heavy chain CDR3 for human antibodies to B
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RN
     389116-42-1 HCAPLUS
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L-Arginine, L-arginyl-L-leucyl-L-isoleucyl-L-arginyl-L-lysyl-L-alanyl-

Absolute stereochemistry.

(9CI) (CA INDEX NAME)

CN

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(RAU)	(RPY) (RVL)		(RWK)	File
Nardelli	2001  97	-+=====  198	Blood	HCAPLUS

L59 ANSWER 36 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:935354 HCAPLUS

DN 136:64094

TI The use of synthetic, non-hormonal 21-aminosteroids, derivatives, metabolites, and precursors thereof in the treatment of viral infections

IN Prendergast, Patrick Thomas

PA Kotze, Gavin Salomon, S. Afr.

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.		glisn 1																
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								GA,									•	•
	ΑU	2001															0010	622 <
PRAI	ΙE	2000	-511			Α		2000	0623	<	_							
	ΙE	2001	-275			Α		2001	0321	<	_							

WO 2001-IB1101 W 20010622 <--

AB The invention discloses the use of synthetic, non-hormonal 21-aminosteroids, derivs., metabolites, and precursors thereof in the treatment of viral infections, particularly hepatitis and retroviral infection by HIV. Synthetic non-hormonal 21-aminosteroids are disclosed for use in the prophylaxis and therapy of hepatitis viral infections. These compds. can be administered alone or in combination with conventional antiviral agents.

IT 153127-49-2, ALX40-4C

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(aminosteroids, derivs., metabolites, and precursors for treatment of viral infection, and use with other agents)

IT 153127-49-2, ALX40-4C

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(aminosteroids, derivs., metabolites, and precursors for treatment of viral infection, and use with other agents)

RN 153127-49-2 HCAPLUS

CN D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-, nonaacetate (9CI) (CA INDEX NAME)

CM 1

CRN 143413-49-4 CMF C56 H113 N37 O10

Absolute stereochemistry.

PAGE 1-A

ANSWER 37 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

PAGE 2-A

CRN 64-19-7 CMF C2 H4 O2

2001:885823 HCAPLUS

Tumor activated prodrug compounds

136:42834

но- c- сн<sub>3</sub>

AN DN

TΙ

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IN
    Trouet, Andre; Dubois, Vincent; Oronsky, Arnold
PΑ
     Universite Catholique De Louvain, Belg.
SO
     PCT Int. Appl., 74 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
     PATENT NO.
                        KIND
                                DATE
                                           APPLICATION NO.
                                                                   DATE
                                            -----
PΙ
    WO 2001091798
                         A2
                                20011206
                                           WO 2001-EP6106
                                                                   20010529 <--
    WO 2001091798
                         А3
                                20021205
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            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
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            YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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    EP 1286700
                         A2
                                20030305
                                           EP 2001-957808
                                                                   20010529 <--
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                                20031118
                                                                   20010529 <--
    US 2004014652
                         A1
                                20040122
                                           US 2003-296954
                                                                   20030616 <--
PRAI US 2000-208996P
                         Р
                                20000601
                                          <--
    EP 2000-870130
                         Α
                                20000615
                                         <--
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EP 2000-870306 A 20001218 <--WO 2001-EP6106 W 20010529 <--

OS MARPAT 136:42834

The invention is directed to novel prodrug compds., compns. comprising the prodrugs, methods of making and using them. The prodrugs comprise a biol. active entity linked to a masking moiety via a linking moiety. The prodrug compds. are selectively activated at or near target cells and display lower toxicity and possibly a longer in vivo or serum half-life than the corresponding naked biol. active entity. A IGF-1 antagonist is used to prepare a dual prodrug with doxorubicin. For the dual prodrug, conjugation takes place at the carboxyterminus of the antagonist rather than on its free N-terminal amino group. The in vivo toxicity of the dual prodrug is evaluated, and its chemotherapeutic activity is compared to that of Dox and of the IGF-1 antagonist, alone or in combination.

IT 143413-47-2D, prodrugs 153127-44-7D, prodrugs

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (tumor activated prodrug compds.)

IT **143413-47-2D**, prodrugs

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (tumor activated prodrug compds.)

RN 143413-47-2 HCAPLUS

CN L-Arginine, L-arginyl-L

\_\_NH2

H2N 
$$\stackrel{H}{\underset{NH}{\bigvee}}$$
 (CH2)  $\stackrel{S}{\underset{N}{\bigvee}}$  (CH2)  $\stackrel{NH}{\underset{NH2}{\bigvee}}$  NH2

L59 ANSWER 38 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:489483 HCAPLUS

DN 135:102578

TI BH4-fused polypeptides

IN Shimizu, Shigeomi; Tsujimoto, Yoshihide

PA Shionogi + Co., Ltd, Japan

SO PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

L 1 111	2111	_																	
	PAT	rent	NO.			KIN	)	DATE		I	APPLI	CAT	I NOI	10.		D <i>P</i>	ATE		
							-			-			<b></b> -						
PI	WO	2001	0480	14		A1		2001	0705	V	VO 20	00-3	JP92	7 4		20	0001	226	<
		W:	CA,	JP,	US														
		RW:	AT,	BE,	CH,	CY,	DE,	, DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	
			PT,	SE,	TR														
	EP 1243595				A1 20020925				E	EP 20	000-9	98593	13		20	0001	226	<	
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
			ΙE,	FI,	CY,	TR					_								
	US	2003	1529	46		A1		2003	0814	Ţ	JS 20	02-1	16922	23		20	0020	627	<
PRAI	JΡ	1999	-371	449		Α		1999	1227	<	-								
	WO	2000	-JP9	274		W		2000	1226	<	-								

AB BH4-fused polypeptides which contain the amino acid sequence of a polypeptide capable of exerting an effect of enabling uptake into cells or a derivative sequence thereof, and an amino acid sequence selected from the group consisting of: (A) amino acid sequences at least containing the BH4 domain sequence (SEQ ID NO:1) of an anti-apoptosis Bcl-2 family protein, (B) amino acid sequences derived from the amino acid sequence represented by SEQ ID NO:1 by substitution, deletion or insertion of at least one amino acid residue, and (C) amino acid sequences having a sequence homol.

of at least 50 with the amino acid sequence represented by SEQ ID NO:1, and are capable of inhibiting apoptosis; apoptosis inhibitors containing these BH4-fused proteins; a method of treating ischemic diseases which comprises administering these apoptosis inhibitors to patients with ischemic diseases to thereby inhibit apoptosis and treat the ischemic diseases; and use of the BH4-fused proteins for producing preventives or remedies for ischemic diseases. Thus, apoptosis can be efficiently inhibited and it is expected that the BH4-fused proteins are applicable to remedies for AIDS, neurodegenerative diseases, myelodysplastic diseases, ischemic diseases, infective multiple failure, fulminant hepatitis, diabetes, etc.

### IT 123251-89-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(BH4-fused polypeptides for treatment of AIDS, neurodegenerative diseases, myelodysplastic diseases, ischemic diseases, infective multiple failure, fulminant hepatitis and diabetes)

#### IT 123251-89-8P

CN

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(BH4-fused polypeptides for treatment of AIDS, neurodegenerative diseases, myelodysplastic diseases, ischemic diseases, infective multiple failure, fulminant hepatitis and diabetes)

RN 123251-89-8 HCAPLUS

L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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RETABLE
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IT

349451-29-2

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|Year | VOL | PG | Referenced Work
  Referenced Author
                                                          | Referenced
   (RAU) | (RPY) | (RVL) | (RPG) | (RWK)
                                                         | File
Shimizu, S
                    |1999 |399 |483
                                       |Nature
                                                          THCAPLUS
Tsujimoto, Y
                     |1985 |228 |1440 |Science
                                                          IHCAPLUS
L59 ANSWER 39 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
    2001:489209 HCAPLUS
ΑN
DN
    135:111952
ΤI
    Histidine copolymer for delivery of drugs into cells
ΙN
    Mixson, A. James
PΑ
    USA
SO
    PCT Int. Appl., 64 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 2
                                   APPLICATION NO.
    PATENT NO.
                     KIND
                             DATE
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    WO 2001047496
PΙ
                             20010705 WO 2000-US34603 20001220 <--
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           LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
           SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
           YU, ZA, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
           DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
           BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                       AΑ
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    EP 1242052
                       A1
                             20020925
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           IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
    US 2003045465
                       A1
                             20030306
                                      US 2001-18103
                                                             20011105 <--
    US 2003165567
                       A1
                             20030904
                                       US 2002-131909
                                                             20020425 <--
    US 7070807
                       B2
                             20060704
PRAI US 1999-173576P
                      Р
                             19991229
                                      <--
    WO 2000-US34603
                       W
                             20001220 <--
    US 2001-18103
                       A2
                             20011105 <--
    The invention provides a pharmaceutical agent delivery composition comprising:
AB
    (i) a transport polymer comprising a linear or branched peptide having
    from about 10 to about 300 amino acid residues, having from about 5 to 100
    histidine residues, and optionally having from 0 to about 95 non-histidine
    amino acid residues; (ii) at least one pharmaceutical agent; and
    optionally (iii) one or more intracellular delivery components in association
    with the transport polymer. The invention also provides methods for using
    such composition to deliver the pharmaceutical agent to the interior of cells.
```

RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (biol. transport-promoting; histidine copolymer for delivery of drugs into cells)

## IT 349451-29-2

RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (biol. transport-promoting; histidine copolymer for delivery of drugs into cells)

RN 349451-29-2 HCAPLUS

CN L-Arginine, L-arginyl-L-histidyl-L-arginyl-L-his

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PAGE 1-C

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$$S \\ NH \\ NH$$

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$$S \\ NH \\ NH$$

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PAGE 2-A

RETABLE

Referenced Author	Year   Vo	OL   PG	Referenced Work	Referenced
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=======================================	+====+==:	===+=====	+======================================	==+======
Mathiowitz	1999	I	US 5985354 A	HCAPLUS

L59 ANSWER 40 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

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2001:440198 HCAPLUS
ΑN
DN
        135:121177
        Inducing cellular immune responses to human immunodeficiency virus-1 using
ТT
        peptide and nucleic acid compositions
         Sette, Alessandro; Sidney, John; Southwood, Scott; Livingston, Brian D.;
IN
        Chesnut, Robert; Baker, Denise Marie; Celis, Esteban; Kubo, Ralph T.;
        Grey, Howard M.
PA
        Epimmune Inc., USA
SO
        PCT Int. Appl., 448 pp.
        CODEN: PIXXD2
DΤ
         Patent
LA
         English
FAN.CNT 18
         PATENT NO.
                                           KIND
                                                       DATE
                                                                         APPLICATION NO.
                                                                                                                  DATE
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        WO 2001024810
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                      IE, SI, LT, LV, FI, RO, MK, CY, AL
        JP 2003510099
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                                                                        JP 2001-527809
                                                                                                                     20001005 <--
PRAI US 1999-412863
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                                                       19991005 <---
        WO 2000-US27766
                                            W
                                                       20001005 <--
        This invention uses knowledge of the mechanisms by which antigens are
AΒ
        recognized by T cells to identify and prepare human immunodeficiency virus
         (HIV) epitopes, and to develop epitope-based vaccines directed towards
        HIV. More specifically, this application communicates the discovery of
        pharmaceutical compns. and methods of use in the prevention and treatment
        of HIV infection.
TΤ
        334752-75-9
        RL: BAC (Biological activity or effector, except adverse); BSU (Biological
        study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL
         (Biological study); USES (Uses)
              (HIV A03 motif peptides with binding information; epitopes of HIV-1,
             cytotoxic T lymphocyte and helper T lymphocyte as vaccine for inducing
             cellular immune responses to human immunodeficiency virus-1)
IT
        334752-75-9
        RL: BAC (Biological activity or effector, except adverse); BSU (Biological
        study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL
         (Biological study); USES (Uses)
              (HIV A03 motif peptides with binding information; epitopes of HIV-1,
             cytotoxic T lymphocyte and helper T lymphocyte as vaccine for inducing
             cellular immune responses to human immunodeficiency virus-1)
        334752-75-9 HCAPLUS
RN
        L-Arginine, \ L-arginyl-L-leucyl-L-isoleucyl-L-\alpha-aspartyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-argi
CN
        isoleucyl-L-arginyl-L-\alpha-glutamyl- (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

### PAGE 1-A

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AN 2001:435102 HCAPLUS
DN 135:56043
TI Complementary peptide ligands generated from higher eukaryote genome sequences
IN Roberts, Gareth Wyn; Heal, Jonathan Richard
PA Proteom Limited, UK
SO PCT Int. Appl., 488 pp.
CODEN: PIXXD2
```

L59 ANSWER 41 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

DT Patent LA English

FAN.CNT 1

	PAT	ENT	NO.			KIN	D	DATE			APPL	ICAT:	ION I	NO.		D	ATE	
PI	WO	2001	0422	76		A1	_	2001	 0614	,	WO 2	000-	GB47	<b>-</b> - 73		2	0001	213 <
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             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           AU 2001-18721
     AU 2001018721
                          Α5
                                20010618
                                                                    20001213 <--
     EP 1244691
                          A1
                                20021002
                                            EP 2000-981486
                                                                    20001213 <--
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         R:
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI GB 1999-29471
                                19991213 <--
                          Α
     WO 2000-GB4773
                          W
                                20001213 <--
     The invention relates to the identification of complementary peptides from
AΒ
     the anal. of protein and nucleotide sequence databases from higher
     eukaryote genomes excluding human and plants. These specific
     complementary peptides interact with their relevant target proteins
     encoded in the eukaryote genome. Specific complementary peptides to the
     proteins encoded in the eukaryote genome can be used as reagents and drugs
     from drug discovery programs and as lead ligands to facilitate drug design
     and development.
IT
     345608-54-0
     RL: PRP (Properties)
        (Unclaimed; complementary peptide ligands generated from higher
        eukaryote genome sequences)
     345591-17-5 345603-11-4 345603-21-6
ΙT
     RL: PRP (Properties)
        (unclaimed sequence; complementary peptide ligands generated from
        higher eukaryote genome sequences)
     345608-54-0
IT
     RL: PRP (Properties)
        (Unclaimed; complementary peptide ligands generated from higher
        eukaryote genome seguences)
RN
     345608-54-0 HCAPLUS
     L-Arginine, L-arginyl-L-seryl-L-leucyl-L-arginyl-L-seryl-L-leucyl-L-
CN
```

Absolute stereochemistry.

arginyl-L-seryl-L-lysyl- (9CI) (CA INDEX NAME)

RSLRSLRSLR

PAGE 1-A

PAGE 1-B

#### RETABLE

Referenced Author (RAU)	(RPY)   (RVL)   (RP	•	Referenced   File
Heal, J William, R William, R	1999  36  113  1988  183  63	31   MOLECULAR IMMUNOLOGY	 

L59 ANSWER 42 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:338365 HCAPLUS

DN 134:344610

TI Cytotoxic T lymphocyte-stimulating peptides for prevention, treatment, and diagnosis of melanoma

IN Hogan, Kevin T.; Ross, Mark H.; Slingluff, Craig L.

PA Argonex Pharmaceuticals, USA

SO PCT Int. Appl., 74 pp. CODEN: PIXXD2

DT Patent

LA English

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FAN.CNT 1
    PATENT NO.
                        KIND
                               DATE
                                          APPLICATION NO.
                               _____
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PΤ
    WO 2001032193
                         A1
                               20010510 WO 2000-US29679
                                                                  20001027 <--
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
            HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
            SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
            ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
            CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1999-162480P
                        P
                             19991029 <--
    The present invention relates to compns. and methods for the prevention,
    treatment, and diagnosis of cancer, specifically malignant melanoma. The
    invention discloses peptides derived from one or more presently
    unidentified genes, as well as variants of these proteins that can be used
    to stimulate a CTL response against melanoma. Further disclosed, is a
    peptide derived from gp100, which can also be used to stimulate a CTL
    response against melanoma.
IT
    338458-37-0 338458-39-2 338458-40-5
    338458-41-6 338458-42-7 338458-43-8
    338458-44-9 338458-45-0 338458-46-1
    338458-47-2 338458-48-3 338458-49-4
    338458-50-7 338458-51-8 338458-52-9
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); PEP (Physical, engineering or chemical process); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); PROC
     (Process); USES (Uses)
        (cytotoxic T lymphocyte-stimulating peptides for prevention, treatment,
       and diagnosis of melanoma)
IT
    338458-37-0
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); PEP (Physical, engineering or chemical process); PRP
     (Properties); THU (Therapeutic use); BIOL (Biological study); PROC
     (Process); USES (Uses)
        (cytotoxic T lymphocyte-stimulating peptides for prevention, treatment,
       and diagnosis of melanoma)
RN
    338458-37-0 HCAPLUS
CN
    L-Arginine, L-arginyl-L-leucyl-L-seryl-L-asparaginyl-L-arginyl-L-leucyl-L-
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Absolute stereochemistry.

leucyl-L-leucyl- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A : NH<sub>2</sub>

RETABLE

Referenced Author (RAU)	(RPY)	VOL	PG)   (RWK)	File
Epimmune Inc University Of Virginia	11999		+=================================	HCAPLUS   HCAPLUS

L59 ANSWER 43 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:311711 HCAPLUS

DN 135:43973

TI Characteristics of membrane permeable arginine-rich peptides

AU Suzuki, Tomoki; Ohashi, Wakana; Nakase, Ikuhiko; Tanaka, Seigo; Ueda, Kunihiro; Futaki, Shiroh; Sugiura, Yukio

CS Institute for Chemical Research, Kyoto University, Kyoto, 611-0011, Japan

SO Peptide Science (2001), Volume Date 2000, 37th, 89-92 CODEN: PSCIFQ; ISSN: 1344-7661

PB Japanese Peptide Society

DT Journal

LA English

AB Arginine-rich basic peptides have been reported to be cell membrane-permeable and to have a function of protein delivery into cells. Arginine residues in these peptides are considered to play a critical role for the characteristics. Fluorescence microscopic observation and quantification of the internalized (Arg)n peptides (n=4,6,8,10,12,16) to

mouse macrophage RAW264.7 cells revealed the existence of the optimal chain length for the efficient translocation.

IT 74386-12-2 148796-87-6

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(cell membrane permeability for arginine-rich peptides)

IT 74386-12-2

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(cell membrane permeability for arginine-rich peptides)

RN 74386-12-2 HCAPLUS

CN L-Arginine, L-arginyl-L

PAGE 1-A

$$R-(CH_2)_3-NH-C-NH_2$$

PAGE 2-B

PAGE 3-A

#### RETABLE

Referenced Author (RAU)	(RPY)   (RVL)   (RPG)	•	Referenced   File
Derossi, D Futaki, S	1994  269  10444  2000  1999  241	J Biol Chem	HCAPLUS
Vives, E	1997  272  16010	· •	HCAPLUS

- L59 ANSWER 44 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 2001:166563 HCAPLUS
- DN 134:337296
- TI Arginine-rich peptides: an abundant source of membrane-permeable peptides having potential as carriers for intracellular protein delivery
- AU Futaki, Shiroh; Suzuki, Tomoki; Ohashi, Wakana; Yagami, Takeshi; Tanaka, Seigo; Ueda, Kunihiro; Sugiura, Yukio
- CS Institute for Chemical Research, Kyoto University, Kyoto, 611-0011, Japan
- SO Journal of Biological Chemistry (2001), 276(8), 5836-5840 CODEN: JBCHA3; ISSN: 0021-9258
- PB American Society for Biochemistry and Molecular Biology
- DT Journal
- LA English
- AB A basic peptide derived from human immunodeficiency virus (HIV)-1 Tat protein (positions 48-60) has been reported to have the ability to translocate through the cell membranes and accumulate in the nucleus, the characteristics of which are utilized for the delivery of exogenous proteins into cells. Based on the fluorescence microscopic observations of mouse macrophage RAW264.7 cells, we found that various arginine-rich peptides have a translocation activity very similar to Tat-(48-60). These included such peptides as the D-amino acid- and arginine-substituted Tat-(48-60), the RNA-binding peptides derived from virus proteins, such as HIV-1 Rev, and flock house virus coat proteins, and the DNA binding segments of leucine zipper proteins, such as cancer-related proteins c-Fos and c-Jan, and the yeast transcription factor GCN4. These segments have

no specific primary and secondary structures in common except that they have several arginine residues in the sequences. Moreover, these peptides were internalized even at  $4^{\circ}$ . These results strongly suggested the possible existence of a common internalization mechanism ubiquitous to arginine-rich peptides, which is not explained by a typical endocytosis. Using (Arg)n (n = 4-16) peptides, we also demonstrated that there would be an optimal number of arginine residues (n .apprx. 8) for the efficient translocation.

## IT 208646-07-5

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(R10; arginine-rich peptides as potential carriers for intracellular protein delivery)

### IT 337516-36-6

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(R12; arginine-rich peptides as potential carriers for intracellular protein delivery)

# IT 208646-07-5

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(R10; arginine-rich peptides as potential carriers for intracellular protein delivery)

PAGE 1-A

RN 208646-07-5 HCAPLUS

CN L-Argininamide, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

H<sub>2</sub>N

PAGE 1-B

PAGE 2-A

PAGE 3-A

RETABLE

Referenced Author (RAU)	(RPY)   (RVL	)   (RPG)		Referenced   File
Calnan, B Chang, H Derossi, D Derossi, D Derossi, D Fawell, S Futaki, S Gorlich, D	1991   252   1997   11   1994   269   1996   271   1998   8   1994   91   1997   5   1996   271	1167   1421   10444   18188   84   664   1883   1513	Science  AIDS  J Biol Chem  J Biol Chem  Trends Cell Biol	HCAPLUS   HCAPLUS   HCAPLUS   HCAPLUS   HCAPLUS
Huq, I	1999  38	15172	Biochemistry	HCAPLUS

jan delaval - 7 september 2006

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Kalderon, D
                      |1984 |39
                                   1499
                                         |Cell
                                                               IHCAPLUS
Lin, Y
                      |1995 |270
                                  |14255 |J Biol Chem
                                                              | HCAPLUS
Nagahara, H
                      |1998 |4
                                   |1449 |Nat Med
                                                              IHCAPLUS
Rojas, M
                      |1996 |271
                                  |27456 |J Biol Chem
                                                              | HCAPLUS
Rojas, M
                      |1998 |16
                                   1370
                                         |Nat Biotechnol
                                                              IHCAPLUS
Schwarze, S
                      |1999 |285
                                  | 11569 | | Science
                                                               IHCAPLUS
                                         |Trends Pharmacol Sci|HCAPLUS
Schwarze, S
                      12000 | 21
                                   145
Tachibana, R
                      11998 1251
                                  1538
                                         |Biochem Biophys Res | HCAPLUS
                                   |5282 | Proc Natl Acad Sci U| HCAPLUS
Tan, R
                      |1995 |92
Vives, E
                       |1997 |272
                                  |16010 |J Biol Chem
                                                              IHCAPLUS
L59 ANSWER 45 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     2001:152524 HCAPLUS
DN
     134:212694
     Compositions and methods for enhancing drug delivery across and into
TΙ
     epithelial tissues
IN
     Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P. Leo; Sista, Lalitha V.
     S.; Kirschberg, Thorsten A.
PA
     Cellgate, Inc., USA
SO
     PCT Int. Appl., 116 pp.
     CODEN: PIXXD2
DΤ
     Patent
LA
     English
FAN.CNT 4
     PATENT NO.
                        KIND
                               DATE
                                           APPLICATION NO.
                                                                  DATE
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PΙ
     WO 2001013957
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                        A3
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     AU 2000069394
                         Α5
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                         В1
                               20040504
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PRAI US 1999-150510P
                               19990824
                         Ρ
                                        <--
     WO 2000-US23440
                         W
                               20000824 <--
OS
     MARPAT 134:212694
AΒ
     This invention provides compns. and methods for enhancing delivery of
     drugs and other agents across epithelial tissues, including the skin,
     gastrointestinal tract, pulmonary epithelium, and the like. The compns.
     and methods are also useful for delivery across endothelial tissues,
     including the blood brain barrier. The compns. and methods employ a
     delivery-enhancing transport that has sufficient guanidino or amidino
     sidechain moieties to enhance delivery of a compound conjugated to the
     reagent across one or more layers of the tissue, compared to the
     non-conjugated compound The delivery enhancing polymers include, for
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residues in length.
IT 328234-41-9P 328234-42-0P

example, poly-arginine mols. that are preferably between about 6 and 25

RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (compns. and methods for enhancing drug delivery across and into epithelial tissues)

IT 328234-41-9P

RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (compns. and methods for enhancing drug delivery across and into epithelial tissues)

RN 328234-41-9 HCAPLUS

CN Cyclosporin A, 6-[(2S,3R,4R,6E)-3-[(mercaptoacetyl)oxy]-4-methyl-2-(methylamino)-6-octenoic acid]-, (6→8')-thioether with N2-[6-[(5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]-D-arginyl

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-A

# PAGE 1-B

# PAGE 1-C

PAGE 1-D

L59 ANSWER 46 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:145156 HCAPLUS

DN 134:206555

TI Methods and compositions for impairing multiplication of HIV-1

IN Goldstein, Gideon

PA Thymon L.L.C., USA

SO U.S., 63 pp., Cont.-in-part of U.S. 5,891,994.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

FAN.	CNI Z				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 6193981	B1	20010227	US 1998-113921	19980710 <
	US 5891994	Α	19990406	US 1997-893853	19970711 <
	US 6525179	В1	20030225	US 1999-451067	19991130 <
	US 2003194408	A1	20031016	US 2002-86208	20020228 <
	US 7008622	B2	20060307		
	US 2003166832	A1	20030904	US 2002-262435	20020930 <
PRAI	US 1997-893853	A2	19970711	<	
	US 1998-113921	A3	19980710	<	
	US 1999-451067	A3	19991130	<	

AB A composition which elicits antibodies to greater than 95%, and even greater than 99%, of the known variants of HIV-1 Tat protein contains at least one peptide or polypeptide of the formula of Epitope I (based on amino acids 2-10 of HIV-1 Tat consensus sequence) and optionally one or more of a peptide or polypeptide of Epitope II (based on amino acids 41 to 51 of that sequence), of Epitope III (based on amino acids 52-62 of that sequence), or of Epitope IV (based on amino acids 62 through 72 of that sequence with a C-terminal Pro). Vaccinal and pharmaceutical compns. can contain one or more such peptides associated with carrier proteins, in multiple antigenic peptides or as part of recombinant proteins. Various combinations of the Epitope I through IV peptides can provide other compns. useful in eliciting anti-Tat antibodies which cross-react with multiple strains and variants of HIV-1 Tat protein. Vaccinal and pharmaceutical compns. can contain the antibodies induced by the peptide

compns. for use in passive therapy. Diagnostic compns. and uses are described for assessing the immune status of vaccinated patients.

IT 123251-89-8

RL: PRP (Properties)

(unclaimed sequence; methods and compns. for impairing multiplication of  ${\rm HIV}{-}1$ )

IT 123251-89-8

RL: PRP (Properties)

(unclaimed sequence; methods and compns. for impairing multiplication of  ${\scriptsize HIV-1}$ )

RN 123251-89-8 HCAPLUS

CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RETABLE

Referenced Author | Year | VOL | PG | Referenced Work | Referenced (RAU) | (RPY) | (RVL) | (RPG) | (RWK) | File

jan delaval - 7 september 2006

	+====	+=====	+=====	:+========	
Aldovini, A	11986		16672	Proc Natl Acad Sci U	•
Anon	11987	i	1		HCAPLUS
Anon	1987	i	i		HCAPLUS
Anon	11991	i	i		HCAPLUS
Anon	1991		i		HCAPLUS
Anon	1992	i I	1		HCAPLUS
Anon	11992	i i	1		•
Anon	11995	1	1		HCAPLUS   HCAPLUS
Anon	11990	1	602	Webster's Ninth New	
Baumberger, C		17	S59	AIDS	1
Brake, D	•	164	1962		      CADIUC
Brake, D		164	1962	•	HCAPLUS
Cantin			1902		HCAPLUS
Clerici, M		18	1391		HCAPLUS
Coombs, R	11996		-		MEDLINE
Daniel, M		•	1704		MEDLINE
Dykes		1258	1938		HCAPLUS
Edwards		!	1		HCAPLUS
	11992	101	1004		HCAPLUS
Fawell, S Frankel	•	191	664	Proc Natl Acad Sci U	
	1997	100	17207		HCAPLUS
Frankel, A	•	186	17397	Proc Natl Acad Sci U	
Gaynor	•	1			HCAPLUS
Goldstein, G	•	2	1960		HCAPLUS
Harlow	•		196	Antibodies, a labora	
Haynes, B		1260		Science	MEDLINE
Krone, W	-	126	261		HCAPLUS
Kusumi, K		166	-		HCAPLUS
Larder, B	•	1243	1731		HCAPLUS
Lee, T	-	17			MEDLINE
Letvin, N		1329			MEDLINE
Li, C	-	194		Proc Natl Acad Sci U	HCAPLUS
Mann, D		10			HCAPLUS
Mannino		1	!		HCAPLUS
McPhee, D		233	1393		HCAPLUS
Mellors, J		272	1167		HCAPLUS
Meyerhans, A		158	901		HCAPLUS
Osborn, J		19	26	J Acq Imm Def Syndr	MEDLINE
Paul, W		182			HCAPLUS
Preston, B		1242			HCAPLUS
Re, M	•	110	408	J Acq Imm Def Synd H	HCAPLUS
Roberts, J	•	1242	1171		HCAPLUS
Rodman	1997				HCAPLUS
Saag, M		1329	1065	N Engl J Med	MEDLINE
Saag, M		2	1625		HCAPLUS
Saksela, K		91	1104	Proc Natl Acad Sci U	HCAPLUS
Sande, M		270	12583	JAMA	MEDLINE
Seligmann, M	1994	343	871	Lancet	1
Steinaa, L		139	1263	Arch Virol	HCAPLUS
Suzue		156	1873	J Immun	HCAPLUS
Suzue, K	1996	156	1873		HCAPLUS
Tam, J		85	15409	Proc Natl Acad Sci U	
Tindall, B	1991	5	1	AIDS	MEDLINE
Wain-Hobson	1991	l		US 5019510	HCAPLUS
Welles, S	1996	174			MEDLINE
Wolinsky, S	1996	1272			HCAPLUS
Zauli, G	1995	10		J Acq Imm Def Synd H	
				· · · · · · · · · · · · · · · · ·	

L59 ANSWER 47 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN AN 2000:808224 HCAPLUS

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DN
     134:86468
ΤI
     Guanidinoglycosides: A Novel Family of RNA Ligands
     Luedtke, Nathan W.; Baker, Tracy J.; Goodman, Murray; Tor, Yitzhak
AU
     Department of Chemistry and Biochemistry, University of California, San
CS
     Diego, La Jolla, CA, 92093-0358, USA
     Journal of the American Chemical Society (2000), 122(48),
SO
     12035-12036
     CODEN: JACSAT; ISSN: 0002-7863
PΒ
    American Chemical Society
DT
    Journal
LA
    English
os
    CASREACT 134:86468
    The authors reported the preparation of guanidinoglycosides, in which the amine
AR
     groups of natural aminoglycosides were converted into guanidinium groups
     by treatment with (Boc-NH)2C:NSO2CF3 [BOC = (H3C)3OC(O)], a new
     guanidinylation reagent. Using the HIV-1 Rev-REE interaction, the effect
     on RNA binding and potential antiviral activity of guanidinylated compds.
     was evaluated. Between 5- and 10-fold increases in inhibitory activity
     were observed for modified kanamycin A, kanamycin B, tobramycin, neomycin B,
     and paromomycin. A solid-phase method was used to evaluate the RNA
     specificity of the guanidinylated compds.
ΙT
     317816-45-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of guanidinoglycosides as RNA ligands)
ΙT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of guanidinoglycosides as RNA ligands)
RN
     317816-45-8 HCAPLUS
     L-Cysteinamide, N-(3-carboxy-1-oxopropyl)-L-threonyl-L-arginyl-L-
CN
     glutaminyl-L-alanyl-L-arginyl-L-arginyl-L-asparaginyl-L-arginyl-L-arginyl-
     L-arginyl-L-arginyl-L-tryptophyl-L-arginyl-L-α-glutamyl-L-arginyl-L-
     glutaminyl-L-arginyl-L-alanyl-L-alanyl-L-alanyl-L-alanyl-S-(2-amino-2-
```

Absolute stereochemistry.

oxoethyl) - (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

PAGE 4-A

# RETABLE

Referenced Author (RAU)	Year  (RPY)			Referenced Work   (RWK)	Referenced
=======================================					
Baker, T	11999	I	11423	Synthesis	HCAPLUS
Battiste, J	11996	273	11547	Science	HCAPLUS
Chen, Q	11997	36	111402	Biochemistry	HCAPLUS
de Guzman, R	11998	48	181	<del>_</del>	HCAPLUS
Feichtinger, K	11998	63	18432		HCAPLUS
Frankel, A	11998	167	1	Annu Rev Biochem	IHCAPLUS
Griffey, R	1999	196	110129	Proc Natl Acad Sci U	HCAPLUS
Hendrix, M	11997	119		J Am Chem Soc	HCAPLUS
Holland, S	11992	166	13699	J Virol	HCAPLUS
Hope, T	1999	1365	186	Arch Biochem Biophys	HCAPLUS
Hoshi, H	1991	4 4	680		HCAPLUS
Kirk, S	11999	۱7	11979	Bioorg Med Chem	HCAPLUS
Kirk, S	12000	122	1980	J Am Chem Soc	HCAPLUS
Kjems, J	11992	111	1119	EMBO J	HCAPLUS
Litovchick, A	2000	139	2838	Biochemistry	HCAPLUS
Luedtke, N	2000	39	1788		HCAPLUS
Mei, H	1995	5	2755	Bioorg Med Chem Lett	HCAPLUS
Michael, K	1998	4	2091		HCAPLUS
Moazed, D	1987	327	1389	Nature	HCAPLUS
Pollard, V	1998	52	491	Annu Rev Microbiol	HCAPLUS
Steicher, W	1983	19	591	Drugs Exp Clin Res	1
Sucheck, S	2000	39	11080	Angew Chem, Int Ed	HCAPLUS
Tan, R	11994	33	14579	Biochemistry	HCAPLUS
Tan, R	1993	73	1031	Cell	HCAPLUS
Tilley, L	11992	89	758	Proc Natl Acad Sci U	1
Tor, Y	11998	5	R277	Chem Biol	HCAPLUS
Walter, F	11999	13	1694	Curr Opin Chem Biol	HCAPLUS
Wang, H	•	1119	18734		HCAPLUS
Weiss, M	11998	48	167	Biopolymers	HCAPLUS

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Zapp, M
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L59 ANSWER 48 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
     2000:34905 HCAPLUS
DN
     132:113080
ΤI
     Peptides based on the sequence of human lactoferrin and their use in
     prevention and treatment of infections, inflammations, and tumors
ΙN
     Hanson, Lars A.; Mattsby-Baltzer, Inger; Baltzer, Lars; Dolphin, Gunnar T.
PΑ
    A+ Science Invest AB, Swed.
SO
    PCT Int. Appl., 102 pp.
    CODEN: PIXXD2
DT
     Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                        KIND
                               DATE
                                         APPLICATION NO.
                                                                 DATE
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PΙ
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            HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
            LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,
            SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU,
            ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
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                                                                 19990706 <--
    AU 752640
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            IE, SI, LT, LV, FI, RO
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                                          NZ 1999-509622
                                                                 19990706 <--
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    SE 1998-4614
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                                         <--
    WO 1999-SE1230
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                               19990706
                                        <--
OS
    MARPAT 132:113080
    The invention relates to new peptides formed of at least seven subsequent
AB
    amino acids of the amino acids in position 12-40, counted from the
    N-terminal end, in the sequence constituting human lactoferrin, and
    preferably modifications thereof. The invention also relates to medicinal
    products comprising such peptides, especially intended for treatment and
    prevention of infections, inflammations and tumors. Furthermore, the
    invention relates to food stuff, e.g. infant formula food, comprising the
    above mentioned peptides.
ΙT
    254433-70-0P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); PEP (Physical, engineering or chemical process); PNU
     (Preparation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
        (peptides based on the sequence of human lactoferrin and their use in
       prevention and treatment of infections, inflammations, and tumors)
IT
    254433-70-0P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); PEP (Physical, engineering or chemical process); PNU
     (Preparation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
```

(peptides based on the sequence of human lactoferrin and their use in

prevention and treatment of infections, inflammations, and tumors)

RN 254433-70-0 HCAPLUS

CN L-Arginine, L-arginyl-L-asparaginyl-L-methionyl-L-arginyl-L-lysyl-L-valyl-(9CI) (CA INDEX NAME)

## Absolute stereochemistry.

### RETABLE

Referenced Author (RAU)	(RPY)   (RVL)	(RPG)	· ·	Referenced   File
Chapple, D Holdingbolaget Vid Gote Koga, Y Morinaga Milk Industry Morinaga Milk Industry Morinaga Milk Industry Morinaga Milk Industry Morinaga Milk Industry Morinaga Milk Industry Odell, E Senju Pharma Co Tomita, M	1998   66   1998     1996     1995     1995     1995     1996     1997     1996   382   1996     1994	2434 	Infection and Immuni  WO 9806425 A1  JP 08-073499 A2  JP 07-145196 A2  JP 07-274970 A2  JP 07-309771 A2  JP 08-143468 A2  WO 9806424 A1  JP 09-165342 A2  FEBS Letters  JP 08-040925 A2  US 5304633 A	HCAPLUS HCAPLUS HCAPLUS HCAPLUS HCAPLUS HCAPLUS HCAPLUS HCAPLUS HCAPLUS HCAPLUS HCAPLUS
Yamamoto, N	1996	1	US 5565425 A	HCAPLUS

L59 ANSWER 49 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:811095 HCAPLUS

DN 132:44975

TI Modulating platelet function

IN Luster, Andrew D.; Abi-Younes, Sylvie

PA The General Hospital Corporation, USA

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

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PΙ
    WO 9965507
                                          WO 1999-US13851
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        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
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                                        US 2001-804606
                                                                20010312 <--
PRAI US 1998-89970P
                        P
                               19980619 <--
    WO 1999-US13851 W
Disclosed
                               19990618 <--
                               19990618 <--
AΒ
    Disclosed herein is a method of identifying a compound which affects the
    interaction between stromal cell derived factor-1 (SDF-1) and platelets,
    comprising the steps of: (a) contacting SDF-1 with platelets in the
    presence of a test compound in a test sample; (b) contacting SDF-1 with
    platelets in the absence of a test compound in a control sample; (c)
    measuring the SDF-1 effect in said test and said control samples; and (d)
    identifying compds. which increase or decrease said SDF-1 effect in the
    test sample compared to the control sample. Also disclosed is a method of
    treating a patient with a vascular disease by administering an inhibitor
    of the interaction between SDF-1 and platelets, in an amount effective to
    reduce the symptoms of said disease. Also disclosed is a method of
    stimulating the interaction between SDF-1 and platelets, as well as
    methods to identify compds. that modulate the above interaction.
IT
    153127-49-2, ALX40-4C
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
        (modulating platelet function by interaction with stromal cell-derived
        factor-1 and CXCR4 and therapeutic application)
IT
    153127-49-2, ALX40-4C
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
        (modulating platelet function by interaction with stromal cell-derived
        factor-1 and CXCR4 and therapeutic application)
    153127-49-2 HCAPLUS
RN
CN
    D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-
    arginyl-D-arginyl-D-arginyl-D-arginyl-, nonaacetate (9CI) (CA INDEX NAME)
    CM
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Absolute stereochemistry.

CRN 143413-49-4 CMF C56 H113 N37 O10

PAGE 1-A

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CRN 64-19-7 CMF C2 H4 O2

RETABLE

Referenced Author | Year | VOL | PG | Referenced Work | Referenced (RAU) | (RPY) | (RVL) | (RPG) | (RWK) | File

jan delaval - 7 september 2006

- DN 132:48807
  TI The Role of Positively Charged Residues in CXCR4 Recognition Probed with
- AU Luo, Zhaowen; Zhou, Naiming; Luo, Jiansong; Hall, James W.; Huang, Ziwei
- CS Kimmel Cancer Institute, Jefferson Medical College, Thomas Jefferson University, Philadelphia, PA, 19107, USA
- SO Biochemical and Biophysical Research Communications (1999), 263(3), 691-695
  CODEN: BBRCA9; ISSN: 0006-291X
- PB Academic Press

Synthetic Peptides

- DT Journal
- LA English
- A high pos. charge is the common characteristic shared by the  $\beta\mbox{-sheet}$ AΒ region of stromal cell-derived factor-1 (SDF-1) and CXCR4 antagonists such as ALX40-4C consisting of nine D-arginines. This raises the question that the pos. charged residues may play a role in recognition of CXCR4. test this hypothesis, two studies were carried out using synthetic peptides. In the first study, peptide analogs possessing amino acid sequences from both the N-terminus and the  $\beta$ -sheet region of SDF-1 were used as models to study the functional role of the  $\beta$ -sheet region of SDF-1. The attachment of pos. charged residues to the N-terminal peptide sequence of SDF-1 was found to enhance the ability of the peptides in CXCR4 binding and inhibiting CXCR4-mediated T-tropic HIV-1 entry. In the second study, two peptides containing nine arginines and the N-terminal signal sequence of SDF-1 were used as models to study the receptor binding mechanism of CXCR4 antagonists of high pos. charges such as ALX40-4C. One peptide did not show signaling activity as indicated by the lack of calcium influx while another peptide induced unusual calcium influx distinct from that induced by the SDF-1 N-terminal peptide. In addition, the signal induced by the SDF-1 N-terminal peptide was inhibited by ALX40-4C. Therefore, the first study provides exptl. support for the role of the highly pos.  $\beta$ -sheet region of SDF-1 in CXCR4 binding. The second study suggests that the binding site of ALX40-4C in CXCR4 may partially overlap with that of the SDF-1 N-terminal peptide. Both findings should be valuable for the design of SDF-1 agonists and (c) 1999 Academic Press. antagonists.
- IT 143413-49-4

RL: PRP (Properties)

(peptide analogs of  $\beta\text{--}sheet$  region of stromal cell-derived factor-1 and CXCR4 antagonist to probe role of pos. charged residues in CXCR4 recognition and binding)

IT 143413-49-4

RL: PRP (Properties)

(peptide analogs of  $\beta$ -sheet region of stromal cell-derived factor-1 and CXCR4 antagonist to probe role of pos. charged residues in CXCR4 recognition and binding)

RN 143413-49-4 HCAPLUS

CN D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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Referenced Author (RAU)	Year   VOI  (RPY) (RVI	)   (RPG)	• • • • • • • • • • • • • • • • • • • •	Referenced   File
Aiuti, A	11997   1185	1111		HCAPLUS
Bleul, C	11996   382	1829	Nature	IHCAPLUS
Crump, M	1997  16	16996	EMBO J	HCAPLUS
Dealwis, C	1998  95	16941	Proc Natl Acad Sci	U HCAPLUS
Doranz, B	1996  85	1149	[Cell	HCAPLUS
Doranz, B	1997  186	11395	J Exp Med	HCAPLUS
Doranz, B	1997  71	16305	J Virol	HCAPLUS
Endres, M	1996  87	1745	Cell	HCAPLUS
Feng, Y	1996  272	1872	Science	HCAPLUS
Heveker, N	1998  8	1369	Curr Biol	HCAPLUS
Li, S	1998  273	16442	J Biol Chem	HCAPLUS

jan delaval - 7 september 2006

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                                    |1039 | Protein Eng
                                                                 | HCAPLUS
Murakami, T
                       |1997 |186
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                                          |J Exp Med
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Rucker, J
                       |1997 |288
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Satoh, T
                       |1997 |272
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Schols, D
                       |1997 |186
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                                          J Exp Med
                                                                | HCAPLUS
Wells, T
                       |1996 |59
                                    153
                                           | J Leukocyte Biol
                                                                | HCAPLUS
L59 ANSWER 51 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
     1999:515617 HCAPLUS
AN
DN
     131:308003
ΤI
     Selective cleavage of the HIV-1 TAR-RNA with a peptide-cyclen
     conjugate
ΑU
     Michaelis, Katrin; Kalesse, Markus
     Institut fur Organische Chemie der Universitat, Hannover, D-30167, Germany
CS
     Angewandte Chemie, International Edition (1999), 38(15),
SO
     2243-2245
     CODEN: ACIEF5; ISSN: 1433-7851
PΒ
     Wiley-VCH Verlag GmbH
DT
     Journal
LA
     English
AB
     A peptide-cyclen conjugate was prepared by solid-phase synthesis
     that showed the ability to cleave the TAR-RNA of HIV-1 in the absence of
     metal ions. Surprisingly, addition of the metal ions Eu(III) or Zn(II)
     seemed to interfere with the cleavage reaction. No cleavage was observed in
     the presence of peptides lacking the cyclen moiety.
IT
     123251-89-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and selective cleavage of the HIV-1 TAR-RNA with a
        peptide-cyclen conjugate)
IT
     123251-89-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and selective cleavage of the HIV-1 TAR-RNA with a
        peptide-cyclen conjugate)
RN
     123251-89-8 HCAPLUS
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L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-

Absolute stereochemistry.

arginyl-L-arginyl- (9CI) (CA INDEX NAME)

CN

PAGE 1-A

RETABLE

Referenced Author (RAU)	Year   VOL   PG  (RPY) (RVL) (RP	,	Referenced   File
Aboul-Ela, F Calnan, B Chang, K Churcher, M	1995   253   313   1991   252   116   1977   199   1379   11993   1230   190	J Mol Biol  7  Science  4  J Am Chem Soc	HCAPLUS   HCAPLUS   HCAPLUS   HCAPLUS   HCAPLUS
Delling, U Dingwall, C Endo, M Farrow, M Frankel, A Hall, J	1992   65	5  EMBO J 8  J Am Chem Soc 6  Biochemistry 9  Protein Sci	HCAPLUS HCAPLUS HCAPLUS HCAPLUS HCAPLUS
Hamy, F Kimura, E Komijama, M Komiyama, M	1993   230   111   1997   119   306   1997   62   215   1995   77	J Mol Biol 8  J Am Chem Soc	HCAPLUS   HCAPLUS 

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Kurz, K	1998  32	194	Chem Unserer Zeit	HCAPLUS
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Matsuda, S	1998  110	3477	Angew Chem	ĺ
Matsuda, S	1998  37	3284	Angew Chem Int Ed	HCAPLUS
Oivanen, M	1998  98	961	Chem Rev	HCAPLUS
Puglisi, J	1992  257	176	Science	HCAPLUS
Sharp, P	1989  59	1229	Cell	HCAPLUS
Weeks, K	1990  249	1281	Science	HCAPLUS
Yashiro, M	1995	11793	IJ Chem Soc Chem Com	nm   HCAPLUS

- L59 ANSWER 52 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 1999:38190 HCAPLUS
- DN 130:208695
- TI The carboxyl terminus of interferon- $\gamma$  contains a functional polybasic nuclear localization sequence
- AU Subramaniam, Prem S.; Mujtaba, Mustafa G.; Paddy, Michael R.; Johnson, Howard M.
- CS Department of Microbiology and Cell Science, University of Florida, Gainesville, FL, 32611, USA
- SO Journal of Biological Chemistry (1999), 274(1), 403-407 CODEN: JBCHA3; ISSN: 0021-9258
- PB American Society for Biochemistry and Molecular Biology
- DT Journal
- LA English
- AΒ Cytokines such as interferon- $\gamma$  (IFN- $\gamma$ ), which utilize the well studied JAK/STAT pathway for nuclear signal transduction, are themselves translocated to the nucleus. The exact mechanism for the nuclear import of IFN- $\gamma$  or the functional role of the nuclear translocation of ligand in signal transduction is unknown. The authors show here that nuclear localization of IFN- $\gamma$  is driven by a simple polybasic nuclear localization sequence (NLS) in its C terminus, as verified by its ability to specify nuclear import of a heterologous protein allophycocyanin (APC) in standard import assays in digitonin-permeabilized cells. Similar to other nuclear import signals, the authors show that a peptide representing amino acids 95-132 of IFN-γ [IFN- $\gamma$ (95-132)] containing the polybasic sequence 126RKRKRSR132 was capable of specifying nuclear uptake of the autofluorescent protein, APC, in an energy-dependent fashion that required both ATP and GTP. Nuclear import was abolished when the above polybasic sequence was deleted. Moreover, deletions immediately N-terminal of this sequence did not affect the nuclear import. Thus, the sequence 126RKRKRSR132 is necessary and sufficient for nuclear localization. Furthermore, nuclear import was strongly blocked by competition with the cognate peptide IFN- $\gamma(95-132)$  but not the peptide IFN- $\gamma(95-125)$ , which is deleted in the polybasic sequence, further confirming that the NLS properties were contained in this sequence. A peptide containing the prototypical polybasic NLS sequence of the SV40 large T-antigen also inhibited the nuclear import mediated by IFN- $\gamma$ (95-132). This observation suggests that the NLS in IFN-  $\!\gamma$  may function through the components of the Ran/importin pathway utilized by the SV40 T-NLS. Finally, the authors show that intact IFN- $\gamma$ , when coupled to APC, was also able to mediate its nuclear import. Again, nuclear import was blocked by the peptide IFN- $\gamma$ (95-132) and the SV40 T-NLS peptide, suggesting that intact IFN- $\gamma$  was also transported into the nucleus through the Ran/importin pathway. Previous studies have suggested a direct intracellular role for IFN-γ in the induction of its biol. activities. Based on the data here, it is suggested that a key intracellular site of interaction of IFN- $\gamma$  is the one with the nuclear transport mechanism that occurs via the NLS in the C terminus of IFN- $\gamma$ .

### IT 220997-71-7

RL: PRP (Properties)

(C terminus of interferon- $\gamma$  containing functional polybasic nuclear localization sequence)

### IT 220997-71-7

RL: PRP (Properties)

(C terminus of interferon- $\gamma$  containing functional polybasic nuclear localization sequence)

RN 220997-71-7 HCAPLUS

CN L-Arginine, L-arginyl-L-lysyl-L-arginyl-L-lysyl-L-arginyl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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PAGE 1-B

# RETABLE

Referenced Author (RAU)	(RPY) (RVL)	(RPG)		Referenced   File
Adam, S Arakawa, T Arakawa, T Bader, T Dobeli, H Fidler, I Gorlich, D Green, M Jans, D Jans, D	1992  219  1989  4	97  217  8534	Methods Enzymol   Drug Design Deliv   J Biol Chem   Proc Natl Acad Sci   J Biotechnol   J Immunol   Science   Biochem Biophys Res   BioEssays   FASEB J	HCAPLUS   HCAPLUS   HCAPLUS U  HCAPLUS     HCAPLUS   HCAPLUS

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                        |1997 |406
                                    | 315
                                            |FEBS Lett
                                                                   | HCAPLUS
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                                    1368
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                        |1998 |244
                                     1607
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Kushnaryov, V
                        |1988 |157
                                     1109
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                        |1996 |10
Leaman, D
                                     11578
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                        |1991 |4
                                     1335
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                        |1991 |202
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                                            |Eur J Biochem
                                                                   IHCAPLUS
Smith, M
                        |1990 |144
                                    |1777
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                                                                   | HCAPLUS
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                        |1994 |201
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                        |1994 |201
                                    1215
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                        |1995 |155
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                                            | J Immunol
                                                                   IHCAPLUS
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                        |1996 |16
                                     1813
                                            | J Interferon Cytokin | HCAPLUS
Wessendorf, J
                        |1993 |268
                                     |22100 | J Biol Chem
                                                                  | HCAPLUS
Wetzel, R
                        11990 |3
                                     1611
                                            |Prot Eng
                                                                   IHCAPLUS
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ANSWER 53 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ΑN 1998:709091 HCAPLUS

DN 129:326081

ΤI Inhibition of HIV-1 replication by a Tat RNA-binding domain peptide analog

ΙN Wang, Jihong; Stein, Stanley; Leibowitz, Michael J.; Rabson, Arnold B.

PΑ The University of Medicine and Dentistry of New Jersey, USA

SO PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

T 7 714 *	CNII				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	WO 9847913	A2	19981029	WO 1998-US7533	19980416 <
	WO 9847913	A3	19990121		
	W: AU, CA, JP,	MX, US			
	RW: AT, BE, CH,	CY, DE	, DK, ES, F	FI, FR, GB, GR, IE, IT,	LU, MC, NL,
	PT, SE				
	AU 9869727	A1	19981113	AU 1998-69727	19980416 <
PRAI	US 1997-844448	A2	19970418	<	
	WO 1998-US7533	W	19980416	<	
00	MADDAD 100.306001				

OS MARPAT 129:326081 AΒ The peptidic compds., R-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg-X-(biotin)-NH2 (R carboxylic acid residue; X = cysteine or lysine residue), analogs thereof, and the biol. and pharmaceutically acceptable salts thereof, contain the 9-amino acid sequence from the basic domain of the Tat protein responsible for specific interaction with TAR RNA, or an analog thereof. The cysteine or lysine residue provides an attachment site for biotin which acts as a cellular uptake enhancer. These peptides bind a fragment of TAR RNA ( $\Delta$ TAR) avidly and specifically, as measured in an electrophoretic gel shift assay. Further, they inhibit tat gene-induced expression of a stably transfected CAT (chloramphenicol acetyl transferase) reporter gene linked to the HIV-1 LTR in a model cell assay, but do not inhibit phorbol ester-induced expression of CAT, thereby demonstrating a Tat-dependent mechanism of inhibition. Inhibition of HIV-1 replication after acute infection of MT2 cells was demonstrated by absence of HIV-induced syncytium formation and cytotoxicity, as well as by suppression of reverse transcriptase production These results indicate that these peptides are capable of competing with the TAR RNA-binding domain of

Tat protein and thus are useful as therapeutic agents in the treatment of AIDS.

#### IT 215315-75-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(Tat RNA-binding domain peptide analog for inhibition of HIV-1 replication)

#### IT 215315-79-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Tat RNA-binding domain peptide analog for inhibition of HIV-1 replication)

#### IT 215315-75-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(Tat RNA-binding domain peptide analog for inhibition of HIV-1 replication)

#### RN 215315-75-6 HCAPLUS

CN L-Cysteinamide, N2-acetyl-L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl-L-arginyl-S-[2-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]hexyl]amino]-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 2-A

L59 ANSWER 54 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:472464 HCAPLUS

DN 127:160187

 ${\tt TI}$  Transport of immunogens into the MHC class I and II pathways by a peptide from HIV tat

- AU Rathbard, Jonathan; Kim, Dewey; Mitchell, Dennis; Bockstedt, Dirk; Fong, Lawrence; Nolan, Gary; Fathman, C. Garrison; Engleman, Edgar
- CS Department of Medicine, Stanford University School of Medicine, Stanford, CA, 94305, USA
- SO Alfred Benzon Symposium (1997), 40 (HLA and Disease: The Molecular Basis), 161-175
  CODEN: ABSYB2; ISSN: 0105-3639
- PB Munksgaard
- DT Journal; General Review
- LA English
- AB A review with 26 refs. Fluorescently labeled tat peptide (residues 49-57) enters the cytoplasm and nucleus of all hematopoietic cells with the exception of erythrocytes. When conjugated to ovalbumin it allowed the protein to effectively enter MHC class I biosynthetic pathway. Results indicate that tat conjugation to protein antigens represents a simple, effective method of generating antigen-specific cytotoxic T cells.
- IT 123251-89-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(protein conjugates; transport of immunogens into MHC class I and II pathways by peptide from HIV tat)

IT 123251-89-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(protein conjugates; transport of immunogens into MHC class I and II pathways by peptide from HIV tat)

- RN 123251-89-8 HCAPLUS
- CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

Ш NH

L59 ANSWER 55 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN 1995:665157 HCAPLUS 123:47891 Peptides for treatment of cytomegalovirus infection Twist, Michael; Sumner-Smith, Martin Allelix Biopharmaceuticals Inc., Can. PCT Int. Appl., 41 pp. CODEN: PIXXD2 Patent English FAN.CNT 5 PATENT NO. KIND DATE APPLICATION NO. \_\_\_\_\_ \_\_\_\_ -----\_\_\_\_\_ \_\_\_\_\_ WO 9511038 19950427 WO 1994-CA590 A1 19941021 <--W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG CA 2152373 AA19950427 CA 1994-2152373 19941021 <--CA 2152373 С 19981215 EP 1994-930888 EP 675731 A1 19951011 19941021 <--R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE AU 685862 B2 19980129 AU 1994-79876 19941021 <--PRAI US 1993-139757 Α 19931022 <--WO 1994-CA590 W 19941021 <--Described herein are anti-cytomegalovirus (CMV) peptides. In a preferred embodiment, the peptide is acetyl-[D-Arg]9-NH2 (I). The use of these peptides, either per se or in combination with other anti-CMV compds., is disclosed as an effective method for controlling CMV infection. Anti-CMV activity of I was assessed by a plaque reduction assay. I was also effective in controlling drug-resistant CMV strains.

Absolute stereochemistry.

143413-49-4 HCAPLUS

143413-49-4

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ΑN DN

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RN

CN

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

arginyl-D-arginyl-D-arginyl- (9CI) (CA INDEX NAME)

(cytomegalovirus infection treatment with peptides and virucides)

(cytomegalovirus infection treatment with peptides and virucides)

D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-

PAGE 1-A

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L59 ANSWER 56 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1994:280279 HCAPLUS

DN 120:280279

TI Intracellular delivery of biochemical agents conjugated with peptides

IN Summer-Smith, Martin; Barnett, Richard W.; Reid, Lorne S.; Twist, Michael

PA Allelix Biopharmaceuticals Inc., Can.

SO Can. Pat. Appl., 19 pp.

CODEN: CPXXEB

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
PI CA 2094658 AA 19931024 CA 1993-2094658 19930422 <--

jan delaval - 7 september 2006

PRAI US 1992-872396 Α 19920423 <--

- The intracellular delivery of biochem. agents, such as therapeutic peptides and oligonucleotides, is facilitated by a carrier peptide coupled therewith. The carrier peptide consists desirably of pos. charged D-amino acids. Acetyl-[D-Arg]9-NH2 (I) was prepared by conventional solid phase synthesis using p-methylbenzylhydrylamine resin as solid support. The uptake of I by cultured HeLa cells after 24 hs was 25.67%.
- ΙT 143413-49-4D, conjugates with biochem. agents 153127-44-7D, conjugates with biochem. agents 154858-89-6D, conjugates with biochem. agents RL: BIOL (Biological study) (for intracellular delivery)
- ΙT 143413-49-4D, conjugates with biochem. agents RL: BIOL (Biological study) (for intracellular delivery)
- 143413-49-4 HCAPLUS RN
- CN D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-Darginyl-D-arginyl-D-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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PAGE 2-A

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